

# *E-Notebook*

## **About this document**

This document is the “*E-Notebook*” section of the manual *Chem & Bio Office*<sup>®</sup> *Chem & Bio3D, Finder and E-Notebook* and is made available as an excerpt for fast downloading. To read the manual in its entirety or to download other sections, visit:

<http://www.cambridgesoft.com/services/DesktopSupport/Documentation/Manuals/Default.aspx>.

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**NOTE:** This manual begins on page 503 because page numbering is the same as in the ChemOffice 2006 complete manual. Likewise, the chapter numbering begins with 26.

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## Section IV: E-Notebook

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# Chapter 26: Introducing E-Notebook 10.0

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E-Notebook 10.0 is an electronic notebook that facilitates daily record-keeping for scientists. E-Notebook makes it possible for you to manage diverse types of data on electronic pages that are much like the pages of a paper notebook. The electronic pages make it easy to organize information and streamline your workflow. E-Notebook also provides a full audit trail and change tracking features for compliance with 21 CFR Part 11.

E-Notebook has many advantages over traditional, paper notebooks. With E-Notebook, you can set up Notebooks and Pages to manage information about organic syntheses and related information such as stoichiometry calculations, reaction preps, spectra, analytical methods, notes, and spreadsheets. Since E-Notebook has electronic rather than paper pages, you can conduct searches by substructure, key word, date, and so on. You can set up templates to avoid reentering information that you often use. Also, E-Notebook fully automates stoichiometric calculations.

With E-Notebook, you can create a customized electronic notebook that matches your workflow. You can develop new fields to manage specialized types of data, and configure your own forms to manage the information that is important to you. You can also add your own data analysis tools and customized searches to E-Notebook.

You can use E-Notebook to organize a wide variety of other information critical to your work processes as well. For example, common reactants used in reaction preps can be stored in the E-Notebook database and shared among researchers. In large enterprises, E-Notebook can be configured

to both supply and retrieve information from other Enterprise systems, such as chemical registration or chemical inventory management systems.

E-Notebook supports the Oracle database format.

### New Features

**NOTE:** *Note: the label **Enterprise** indicates that the feature is only available in Enterprise versions of E-Notebook, not in the Desktop version.*

E-Notebook 10.0 offers many new features, including:

- **Reaction Section Enhancements** – E-Notebook now updates the stoichiometry grid automatically when you edit a reaction drawing. Additional features for working with salt codes and solvents have been added as well.
- **Reaction Toolbar** – a new toolbar makes it easy to manage reactants and products in your reactions.
- **AutoText** – text in the preparation is updated automatically, based on change you make to the reaction drawing or stoichiometry grid.
- **Reaction Explorer** – you can now view a reaction tree that displays the predecessors and successors of a batch or compound. (Enterprise version only).
- **Enterprise** **ISIS/Draw Integration** – with the E-Notebook's ISIS Draw Tool, you can draw and store chemical structures and reactions in the Chemical Structure Field just as you would do with ChemDraw Tool.

- New Section Enhancements – Some more sections have been added to E-Notebook environment to increase the range to express your ideas.
- Captured Image Sections – allow you to manage PDF files in E-Notebook.
- MS PowerPoint Sections – You can use MS PowerPoint Sections to manage MS PowerPoint slideshows in E-Notebook.
- **Formulas** – You can now associate your own custom formulas with tables or property lists in E-Notebook. The formulas can refer to other values in an E-Notebook form.
- **Enterprise PDF Rendering** – You can now export Collections to PDF, then manage them as you would PDF documents.
- **Searching enhancements** – You can now perform a search that is a union or an intersection of two searches. Or, you can subtract one set of search results from another.
- **Enterprise Inbox** – It is now possible to send data to an E-Notebook experiment or another E-Notebook user.
- **Acronyms database** – E-Notebook provides a database of 2400 acronyms, which you may add to your reactions.
- **Enhanced table of contents** – You can now create a customized table of contents: hiding columns, showing additional columns, and sorting items in an ascending or descending order.
- **Enterprise Offline data management** – You can create or modify experimental records off-line, then upload them at a later time.
- **Send2ENotebook/Send2File** – It is now possible to render the contents of a document using a print driver, and insert the contents into a collection.


- **Enterprise E-Signatures** – You can now get your experiments electronically signed and then stored in PDF format once they are finished.

## Terminology

Many of the terms used to describe the features of E-Notebook are the same terms that one would use in describing a paper notebook. In some cases, however, the terminology is different, and familiar words—such as collection or section—may have different meanings. The following terminology is used in the E-Notebook application and throughout this guide:

- **Administrator** – The person who configures E-Notebook and sets up security permissions.
- **Collection** – A set of related items in E-Notebook. Collections are the items that appear in the E-Notebook Collection Tree.
- **Collection Listener** – Collection Listeners modify the behaviors of collections, such as creating, hiding, renaming, duplicating and moving behaviors. Administrators assign them to collections.
- **Collection Type** – A unit of configuration that contains business rules for organizing collections and sections. Each collection type has a name, an icon for displaying collections of that type in the collection hierarchy and a set of business rules that describe what kinds of operations can be performed on collections of that type
- **Field** – A description of a unit of data within a section type. Each field has a type, which describes the type of data stored in the field, and a name. Examples of different types of fields include a property list, a table, a chemical structure, a spectrum, a Microsoft Word document. Depending on the type of data stored in the field, the field may also contain additional

configuration information. For example, a property list field contains a list of the properties that can be included in the property list.

- **Form** – the layout of a section is determined by the Form, which contains Fields, Boxes, and possibly Form Tools.
- **Form Tool** – a Form Tool is used to perform particular function in an E-Notebook section, such as data analysis or data import/export.
- **Full Control privilege** – The privilege required to manage the security settings of a collection. The Full Control privilege subsumes all of the features associated with the Read & Write privilege
- **History** – A list of the versions and transitions that have been made to a collection.
- **Home** – The collection that appears when you first log in to E-Notebook. It is the collection associated with you as a user.
- **Logging In** – Entering E-Notebook by providing a user name and password.
- **Meta-data** – Data that describes other data. For example, you can use meta-data such as creation date or owner's name as parameters when searching for data and information in E-Notebook.
- **Owner, of a Collection** – the E-Notebook user who created the collection.
- **Property List** – A list of data properties corresponding to a particular section. For example, the property list in a reaction section may contain pressure, temperature, etc.
- **Read privilege** – The privilege required to view a collection in the collection tree, along with its contents
- **Read & Write privilege** – The privilege required to modify the contents of a collection. The Read & Write privilege subsumes all of the features associated with the Read privilege.
- **Region** – A geographic area that is used to specify characteristics of a user, such as the name of the template used when converting the contents of a set of sections to MS Word document.
- **Table** – A section (or part of a section) in which you can record data in a tabular format.
- **Template** – A collection containing data or information that you wish to reuse multiple times. You can use the template as the basis for new collections.
- **Section** – A set of related pieces of data. Each piece of data is described by a field. For example, a reaction section might contain a chemical structure drawing, a table of reactants, a table of solvents, a table of products and a description of the procedure used to create the drawing.
- **Section Listener** – Section Listeners modify the behaviors of sections, such as renaming and moving behaviors. Administrators assign Section Listeners to various types of sections.
- **Section menu icon** – The  icon that appears when sections are displayed. Right-clicking the icon displays the section menu.
- **Section tools icons** – The icons that appear immediately below the section menu icon if there are tools (such as import or export tools) associated with the section displayed.
- **Section Type** – A unit of configuration that contains a set of fields, form tools and a form. In addition, you can associate section listeners with a section type to implement business rules associated with sections of this type.
- **Transition**—An action performed by a user to move a collection from one state to another.

- **Transition Listener**—Transition Listeners modify the effect of a transition, usually by performing an operation that is associated with the transition. System administrators configure Transition Listeners.
- **User**—A person who uses E-Notebook. User is also the term that E-Notebook uses to identify a person.
- **Version**—The contents of a collection saved at a particular time.

## About the E-Notebook Guide

The E-Notebook Guide provides you with step-by-step instructions for using the features of E-Notebook. The left frame of this guide displays the Table of Contents; you can open book icons to display topics and the sub-topics they contain. The right frame displays the specific topic you have selected. Each topic includes hyperlinks to related topics in the guide. This helps you to find the information you need quickly and easily.

The E-Notebook Guide is organized into three main portions:

1. **Introducing E-Notebook 10.0** – provides an overview of E-Notebook, including new features and E-Notebook terminology.
2. **E-Notebook User's Guide** – provides detailed instructions for using E-Notebook.
3. **E-Notebook Administrator's Guide** – provides detailed instructions for configuring E-Notebook.

In addition, this guide contains instructions for using the Reagent Selector and CombiChem in E-Notebook. (Each of these add-in features is sold as a separate component).

- **Introducing the Reagent Selector** – allows you to search ChemACX for chemical structures, and to add their properties and structures to E-Notebook. (Enterprise version only).

- **Enterprise** **Introducing CombiChem for E-Notebook** – makes it possible for you to set up and manage combinatorial chemistry libraries in E-Notebook.

## Getting Started in E-Notebook

To start E-Notebook, you must log in to the application. Then, you can begin to browse or search through E-Notebook.

### Logging In

Depending upon your particular E-Notebook setup, you may be logging-in in one of two ways:

### Start Menu Login

To log in from the Windows Start menu,

1. Select the Start menu, then All Programs.  
The programs you may launch are displayed.
2. Point to ChemOffice 2006, then select E-Notebook Ultra 10.0.  
You are logged into E-Notebook. The Collection Tree appears, displaying your Home Collection.

### Logging in with Internet Explorer

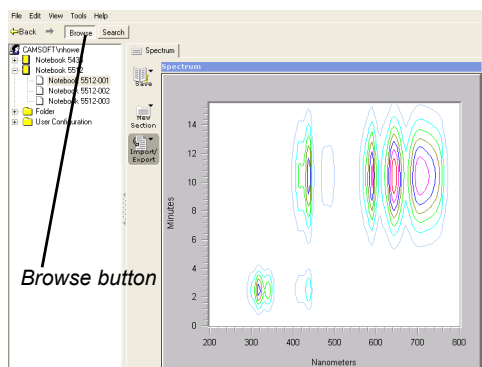
To log in to E-Notebook with Internet Explorer:

1. In the address field of your browser, type in the address corresponding to E-Notebook.  
Either you will be logged in automatically, or the E-Notebook login page will appear, prompting you to enter your username and password.
2. If prompted, enter your username and password, then click the Enter button.  
The Collection tree appears, displaying your Home Collection.

## Navigation Overview

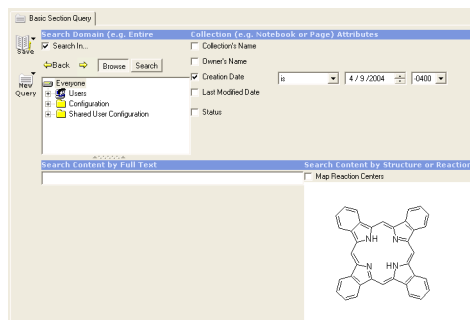
E-Notebook is composed of two main areas, **Browse** and **Search**, each of which is represented by a button at the top of the screen.

The **Browse** area displays the collections, organized in a tree structure. To expand a collection and view its contents, either double-click it or click the plus sign next to it. Clicking an individual collection allows you to view and/or edit it in the right frame. There are a number of options for specifying your view of the Collection Tree. See “Browsing the Collection Tree” on page 525 for more information.



From within the **Search** area, you can construct a query to search for information. For example, you may want to search for all of the sections that contain a certain structure, or all of the collections created by a particular user. When you run a query, you can save both the results list and the query

itself. Clicking any item in the results list allows you to browse to that item.



Certain menus in E-Notebook are accessed when a particular item or icon is right-clicked. For example, right-clicking a collection in the Collection Tree will display the collection menu.

If at any point you would like to expand the size of a field in a section, you can double-click the titlebar of the field. The field will expand to take up the entire section area, increasing your working space. To shrink the field, simply double-click the titlebar again.

## Security Overview

Each user of E-Notebook has a unique username and password. Thus, only valid users may log in to E-Notebook.

Once a user has logged in, security in E-Notebook is set up on a collection basis. Security properties may be set up for any collection in the Collection Tree — whether it be a User, a Notebook, a Folder, etc. The security properties of a collection determine who has Read, Write, or Full Control access to that collection. These access privileges may be assigned to individual E-Notebook users or to user groups.

- **Read** – permission to view the collection, but not edit it.
- **Read and Write** – permission to view the collection and edit it, if it is in a state that permits edits.



- **Full Control** – Read and Write permission, and also the ability to assign and remove security permissions for the collection.

By default, each collection inherits the security properties of its parent in the Collection Tree. The inherited security option may be disabled, however, so that the security properties of a collection can be configured independently of its parent.

In addition to security at the collection level, security may also be configured for collection transitions, specifying which users may or may not perform certain transitions on collections.

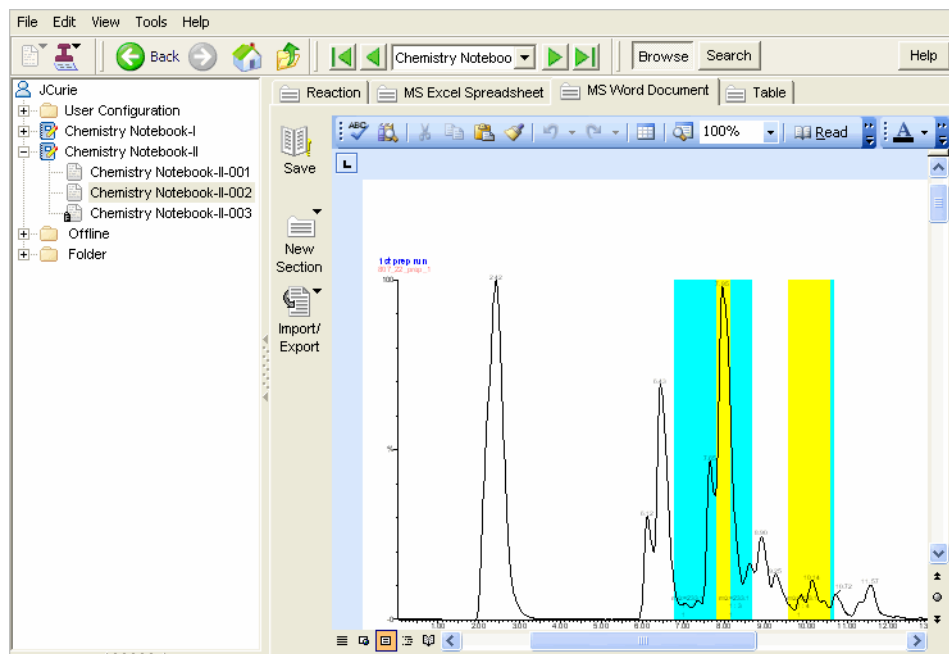
If you have Full Control permission to a collection, you may determine who has access to the collec-

tion. See “Changing Collection Security Properties” on page 589.

The Administrator Guide provides additional information for system administrators.

## E-Notebook Overview

E-Notebook manages numerous types of data on electronic pages that are much like the pages of a traditional, paper notebook. This information is organized into collections — sets of related items that appear in a tree structure in the left frame when you are browsing E-Notebook.



Examples of some common types of E-Notebook Collections are:

- Notebook and Page
- Therapeutic Area
- Project
- Experiment
- Reaction Scheme

- Synthesis

For example, you could create a collection that contains all of the reaction steps for a specific synthesis. Typically, primary research data is stored in Experiments or Pages, which are organized within Notebooks, just like the paper pages in paper notebooks. In this case, the synthesis could be a Notebook, and each of the steps could be a Page. Each

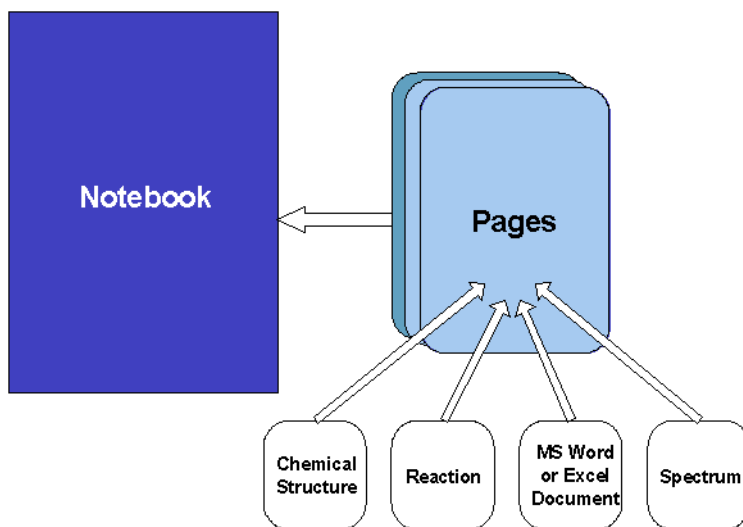
of the Pages may come from a different Notebook and may have been created by a different Chemist, but the Notebook for this, particular synthesis could collect all of these Pages in a single place.

You can organize collections in other ways, too. For example, you may want to create a collection of all of the syntheses that lead to a certain product, or all of the E-Notebook users who are working on a specific project. E-Notebook enables you to set up these relationships easily.

Collections are extremely flexible, because they are designed to allow you to organize your information in the way that is best suited to your workflow. E-Notebook allows you to browse through collections and to search them for important information. Also, you can create references to them, duplicate them, and, to prevent further changes, you can transition them to a closed, read-only state.

Just as you would use pages in a paper notebook for recording various types of data, you can use sections in E-Notebook for recording reactions, spectra, or any other kind of information. For example, within an Experiment, there may be sections for Reactions, Notes, Reactants, etc. — whatever you need to record and display your information the way you would with a paper notebook. You also have the option to use templates, so that sections are set up automatically and uniformly with each new Experiment you create.

Your system configuration determines the types of collections and sections that you can create within E-Notebook and the rules that define their contents. The permission to view, edit, and create collections can be set up on a per-collection basis.





# Chapter 27: Working with E-Notebook

This portion of the guide describes how to use notebooks, experiments, and other features that E-Notebook offers for managing your data.

It is divided into the following topics:

- Notebooks, Pages, Experiments, and Other Collections
- Working with Templates
- Working with MS Office Sections, Reactions, and other Sections
- Send2ENotebook and Send2File
- **Enterprise** Working Offline

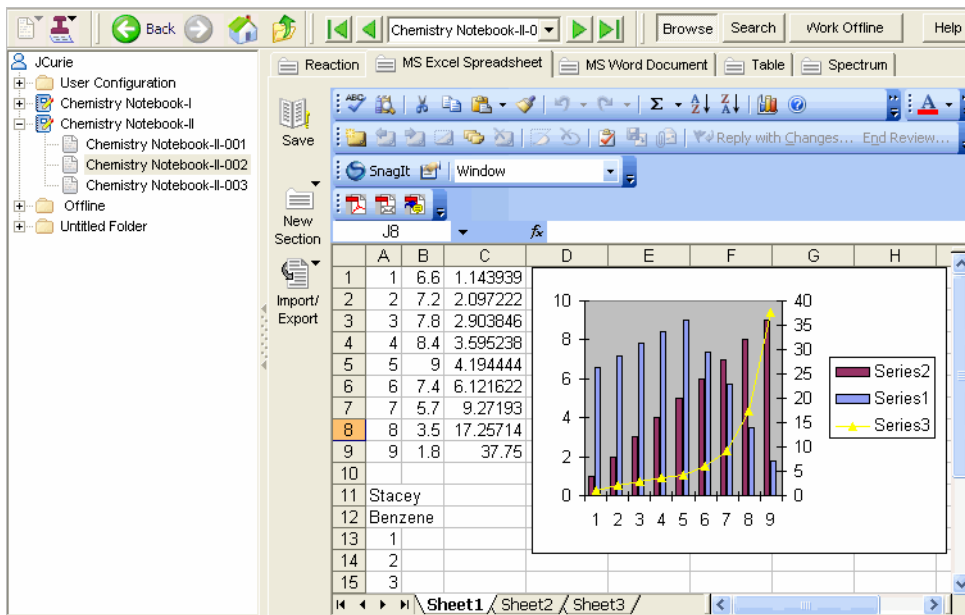
## Notebooks, Pages, Experiments, and Other Collections

This portion of the User's Guide describes how to work with notebooks, experiments, and other types of E-Notebook collections.

For information about copying, renaming, exporting collections, etc., see “Organizing Collections” on page 584.

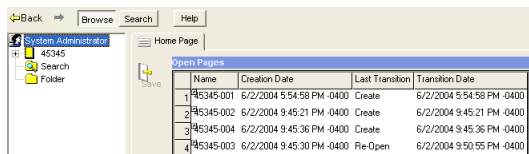
## Working with the User Collection

Each user of E-Notebook has an associated user collection. Your user collection is your home collection, and appears at the top of the Collection Tree when you first log into E-Notebook.



When your user collection is selected in the Collection Tree, your home page appears in the right

frame. The home page displays summary information about your open pages or experiments.



You may add several different types of collections directly to your user collection:

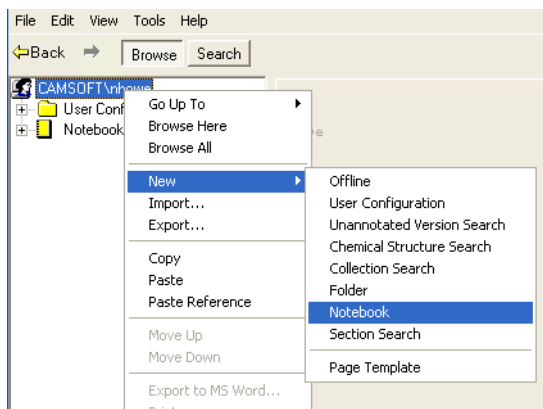
- Notebooks
- Folders
- [User Configurations and AutoText Definitions](#)
- Searches – Collection Searches, Section Searches, Text Searches, Unannotated Version Searches, Chemical Structure Searches.
- Page or Experiment Templates
- References to Notebooks
- References to Folders
- References to Page or Experiment Templates

## Adding a New Collection to the User Collection

To add a new collection:

1. In the Collection Tree, right-click your user collection.

A menu appears.



2. Select **New**, then select a type of collection.

3. The new collection appears and you are prompted to rename it.

## Adding a Reference within the User Collection

To add a reference in a User Collection:

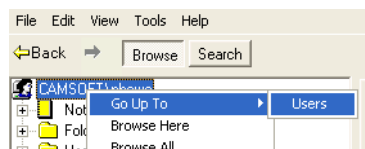
1. In the Collection Tree, click the Notebook, Folder, or Template to which you wish to create the reference.
2. While holding the CTRL and SHIFT keys, drag the collection until the user collection is highlighted.
3. Release the mouse.

The Reference appears in the Collection Tree.

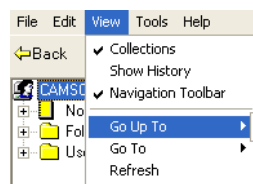
Alternatively, you may right-click the collection you wish to reference, and select **Copy** from the collection menu. Then, right-click the user collection and select **Paste Reference**.

## Browsing up to the User Group

If you have the required security permissions, you may browse up to the next highest level in the Collection Tree and view the user group at that level. To do this, right click your user collection, select **Go Up To**, then the name of your user group.



Alternatively, you may select **View** from the menu bar, then **Go Up To**.



## Working with Notebooks

Notebooks contain Page or Experiment collections. Each Notebook has a table of contents asso-

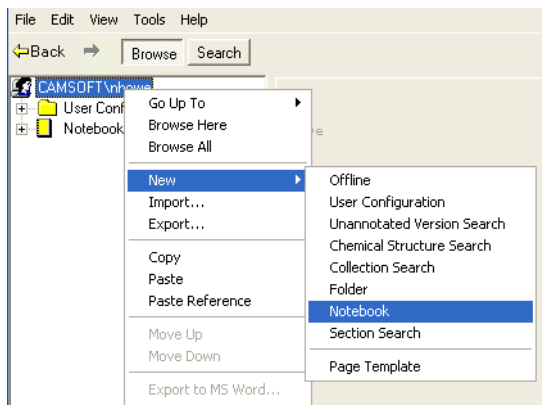
ciated with it, which displays summary information for each collection in the Notebook.

## Creating a Notebook

To create a new Notebook collection:

1. In the Collection Tree, right-click your user collection.

A menu appears.



2. Select New, then Notebook.
3. A new Notebook collection appears and you are prompted to rename it. Its Table of Contents section appears in the right frame.

**TIP:** If you would like to create a new Page/Experiment within the Notebook, simply click the New Experiment icon



Each Notebook has a Table of Contents section associated with it. The Table of Contents summarizes all of the Pages/Experiments that the notebook contains. Double-clicking the number associated with any of the contained Pages/Experiments listed will allow you to navigate to that Page/Experiment. You may also print the Table of Contents to create a hardcopy of it; see "Printing Sections" on page 581 for more information.

When you rename a Notebook, the names of the Pages or Experiments within it will change to match the name of the Notebook.

## Working with Pages and Experiments

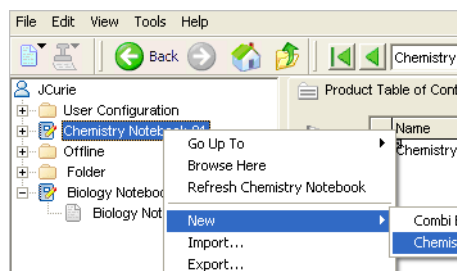
Pages/Experiments in E-Notebook may contain several different types of sections for experimental data.

### Creating a Page or Experiment

To create a new Page or Experiment collection:

1. In the Collection Tree, right-click the Notebook collection to which you would like to add the Page or Experiment.

A menu appears.



2. Select New, then Page (or Experiment).

A new Page or Experiment collection appears within the Notebook. It is numbered automatically.

You may associate several types of sections with the Page/Experiment:

- Reaction Section
- MS Word Document Section
- Ancillary Data Section
- Spectrum Section
- Spectra Section
- Table Section
- [MS Excel Spreadsheet Section](#)
- MS PowerPoint Section

- Captured Image Section

## Creating a Page or Experiment from a Template

To create a new Page or Experiment collection from a template:

1. In the Collection Tree, click the template to select it.
2. Drag the template into the Notebook.

A new Page or Experiment is created, based on the template.

Alternatively, you may right-click the template and select **Copy**. Then, right-click the Notebook and select **Paste**. (See “Working with Templates” on page 517 for information about creating the initial template).

## Closing and Reopening Pages and Experiments

Pages and Experiments have several states which define their lifecycles. You may perform transitions on a Page or Experiment to move it from one state to another.

- **Open** – writable, optional annotation of changes
- **Closed** – read-only
- **Reopened** – writable, required annotation of changes, changes visible on the screen and in the printed copy. (See “Changes and Audit Trail” on page 597 for information about visualization of changes and providing annotation).

**Enterprise**

## Working with the Inbox

E-Notebook makes it possible for data to be sent from external sources to an Inbox or temporary holding area. For example, you could send spectral data to a particular E-Notebook user or to a specific experiment. This could be done with, for example, the Send2 feature. The section will appear in an Inbox, and from there you can move it into the appropriate experiment.

For more information, see “Using the Inbox” on page 545.

## Working with Folders

You can use folders to organize and manage other types of collections:

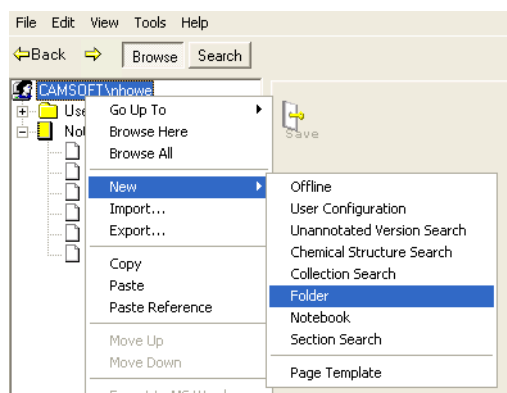
- other Folders
- **Saved Searches** – Collection Searches, Section Searches, Text Searches, Chemical Structure Searches, Unannotated Version Searches
- References to any type of collection

## Creating a Folder

To create a new Folder collection:

1. In the Collection Tree, right-click your user collection.

A menu appears.



2. Select **New**, then **Folder**.
3. A new Folder collection appears and you are prompted to rename it.

Or, you may right-click an existing Folder collection and select **New**, then **Folder**, to create a Folder within a Folder.

## Adding a Reference to the Folder

You may add references to a folder if, for example, you would like to keep the information from several Pages/Experiments together, but the Pages/Experiments exist in separate notebooks.

1. In the Collection Tree, click the Collection to which you wish to create the reference.
2. While holding the CTRL and SHIFT keys, drag the collection until the folder collection is highlighted.
3. Release the mouse.

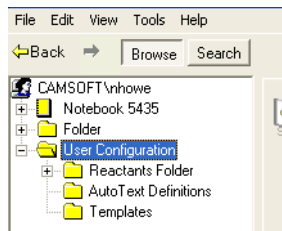
The Reference appears in the Collection Tree.

Alternatively, you may right-click the collection you wish to reference, and select **Copy** from the collection menu. Then, right-click the folder collection and select **Paste Reference**.

## Working with the User Configuration Folder

Within your user collection, there is a User Configuration Folder, which can contain Reactants, AutoText, and Templates.

To expand your User Configuration folder and view its contents, either double-click it in the Collection Tree or click the plus sign next to it:



- **Reactants Folder** – contains reactants whose structures and properties you can add to Reaction Sections. See “Working with Reactants Collections” on page 515 for information.
- **AutoText Definitions** – contains predefined text fragments that you can reuse to simplify text entry in, for example procedure text. See “Creating New Autotext Definitions” on page 543 for information about configuring AutoText

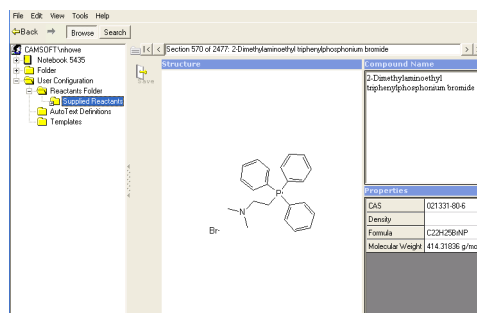
- **Templates folder** – contains templates of various types that you can use to avoid unnecessary reentry of data. See “Working with Templates” on page 517 for more information.

## Working with Reactants Collections

Reactants are named shortcuts for a commonly used compounds. These could be either common reagents, or named compounds that you use frequently.

You may populate reaction sections with the properties of reactants.

E-Notebook provides 2477 commonly used reactants, as shown below:



## Adding a New Reactant to an Existing Reactant Collection

To add a new reactant section to an existing collection.

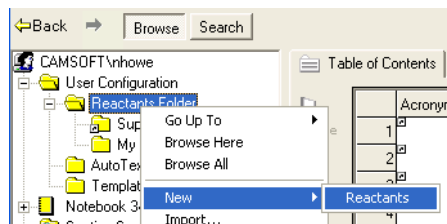
1. Browse to the Reactants collection to which you wish to add the Reactant, clicking the collection in the Collection Tree to select it.


The Reactants collection appears, with the existing reactants displayed in the right frame.

2. In the right frame, click the **New Reactant** button.



A new reactant section appears.



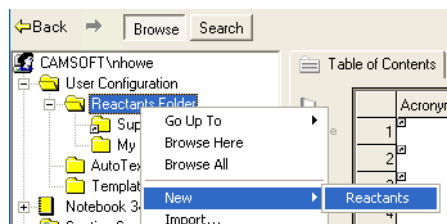
3. To rename the section, click the section menu icon  and select **Rename Section** from the menu that appears. Then type in a name.
4. Draw or import the structure using the Chem-Draw tools.

The formula and molecular weight properties are updated automatically. The compound name may be updated as well. The compound name will be displayed in the table of contents for the Reactants Folder that contains this reactant. (Click the Reactants Folder in the Collection Tree to view its table of contents).

## Adding a New Reactant Collection

You can add a new Reactant Collection to your User Configuration folder in E-Notebook. To add a new Reactant Collection:

1. Right-click the Reactants Folder and select **New**, then **Reactants**.



A Reactants collection appears, and you are prompted to rename it.

2. Enter a name for the Reactants collection.
  3. Click the New Reactant tool in the right frame.
- A new Reactant section appears.

You may populate reaction sections with the properties of reactants.

## Working with Table of Contents

E-Notebook collections often have Table of Contents sections associated with them. The Table of Contents lists all of the collections that fall directly within the selected collection in the Collection Tree. For example, if a Notebook contains Experiments, all of the Experiments in the Notebook will be listed. Or, if a Folder contains templates, all of the templates in the Folder will be listed.

Double-clicking the link by any of the contained collections listed will allow you to navigate to that collection. You may also print the Table of Contents to create a hardcopy of it. See “Printing Sections” on page 581 for more information.

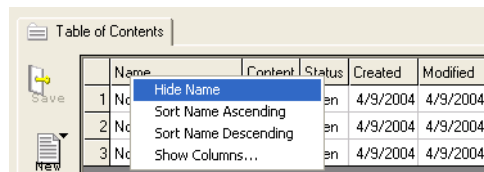
You can customize a Table of Contents to display only the columns that are of interest to you. It is also possible to sort items in the TOC in either an ascending or a descending order.

## Hiding Columns

You can hide columns in the Table of Contents. To do this:

1. Right-click the column you wish to hide.

A menu appears.



2. Select **Hide** followed by the name of the column.

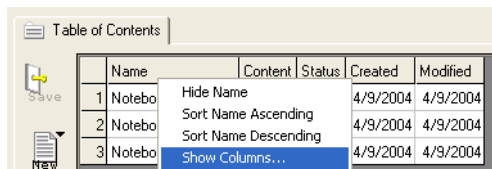
The screen refreshes, and the column is hidden.

## Showing Columns

To show additional columns that are hidden, or are not currently displayed in the Table of Contents.

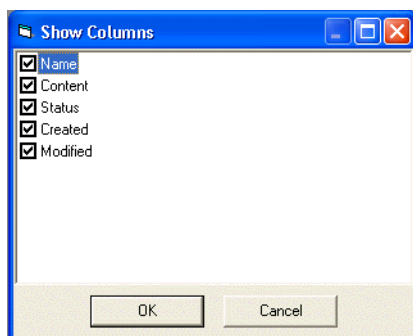
3. Right-click one of the columns in the Table of Contents.

A menu appears.



4. Select Show Columns.

The Show Columns dialog appears, listing the columns you may select for display in the TOC. The columns that are currently displayed are denoted with checkmarks.



5. Select and deselect columns to customize the TOC display.

The columns you selected appear with checkmarks next to them.

6. Click OK to close the dialog.

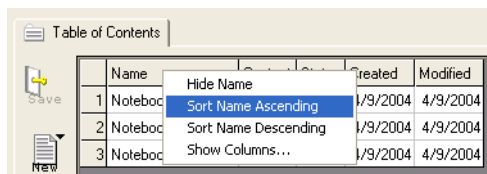
The dialog closes, and the screen refreshes to display the additional columns.

## Sorting Items in the TOC

You may sort items in the TOC in either an ascending or descending order. To sort items in an ascending order:

7. Right-click the column by which you wish to sort the Table of Contents.

A menu appears.



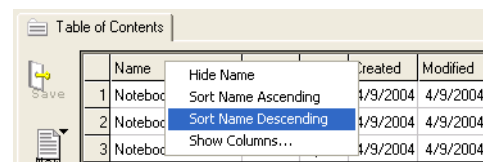
8. Select Sort Ascending.

The items are sorted in ascending order according to the column you selected.

To sort items in an descending order:

9. Right-click the column by which you wish to sort the Table of Contents.

A menu appears.



10. Select Sort Descending.

The items are sorted in descending order by the column you selected.

## Working with Templates

E-Notebook gives you the ability to use templates so that you can avoid reentering information unnecessarily. For example, you may create a template for a particular type of Experiment or Page. It may contain data and notes that you often use, or typical values for various properties.

To create a new template:

1. Within your User Configuration Folder, there should be a My Template folder. Right click this folder and select **New**, then the type of template you wish to create.

The template appears within the folder.

2. Add any data you wish to the template.

In order to use the template as the basis for a new experiment:

3. Select a notebook in the tree, and click the New Experiment button:



A list of the available templates is displayed.

4. Select the desired template.

A new experiment appears within the notebook. It contains all of the data that was in the template.

Alternatively, simply click a template in the tree to select it, and then drag it into the notebook to create a new Experiment.

## Working with MS Office Sections, Reactions, and other Sections

Pages/Experiments in E-Notebook may contain several different types of sections for your experimental data. Just as you would use pages in a paper notebook for recording various types of data, you can use sections in E-Notebook for recording MS Excel data, reactions, images, and other types of information.

You may associate several types of sections with the Page/Experiment:

- Reaction Sections
- Captured Image Sections
- Ancillary Data Sections
- Table Sections
- Spectrum and Spectra Sections
- MS Word Sections
- MS PowerPoint Sections
- MS Excel Spreadsheet Sections

Your system configuration determines the types of sections that are available in E-Notebook.

## Reaction Sections

Reaction Sections can be used to show one step in a reaction. You can draw and store a reaction using the ChemDraw reaction field. The ChemDraw Toolbar allows you to create a chemical structures in the reaction field. The section contains a stoichiometry grid as well, that analyzes the reaction drawing automatically. The AutoText feature updates the preparation text when you change the reaction drawing and/or information in the stoichiometry grid.

For detailed information about all the features of Reaction sections, see "Reactions in E-Notebook" on page 528.

## Captured Image Sections

Captured Image Sections allow you to view and annotate PDF images and documents, using the same tools as Adobe Acrobat software. With Captured Image Sections, you have the capability for importing, exporting, viewing, and annotating PDF documents. The section supports all image file types such as JPG, GIF, PNG, TIFF and BMP.

For detailed information about importing, exporting, clearing etc., see "Working with Captured Image Sections" on page 551.

## Ancillary Data Sections

Ancillary Data Fields make it possible for you to associate a file type which is not supported by E-Notebook. Although the file cannot be viewed from within E-Notebook, a user can export it to a selected location, and then open it and view or edit it from there.

When you import the file, the checksum, source path, source file name, source file size and source file type are populated automatically into the E-Notebook.

For detailed information about all the features of Ancillary Data Sections, see "Working with Ancillary Data Sections" on page 564.

## Table Sections

Tables enable you to organize data in an easily interpreted, tabular format. The Table sections in E-Notebook can be used to organize the chemical properties of compounds that interest you. You can add properties to a Table, pivot a Table, resize columns and rows, and organize columns and rows. Tables may contain several basic types of data — text data, numerical data, dates, or structures. You may set up tables in different sections in E-Notebook to contain different types of information.

Another feature of tables is the ability for you to add references to them. You can insert links to other E-Notebook sections or collections into a table. When you add a reference or link to a table, you may navigate to the collection or section you have referenced, simply by clicking a link in the table cell.

See “Working with Table Sections” on page 565 for more information.

## Spectrum and Spectra Sections

Spectrum Sections allow you to view and analyze spectrum images, using the same tools as Galactic GRAMS32 software. Thus, you can manage your spectra data easily and effectively using Spectrum and Spectra sections. You can import spectrum images of various types. The section allows you to copy and export spectrum images as well.

While the Spectrum Section can contain a single spectrum, the Spectra section can contain multiple spectra, organized in subsections or subtabs.

For more information, see “Working with Spectrum and Spectra Sections” on page 560.

## MS Word Sections

MS Word Sections allow you to view and edit MS Word documents within E-Notebook sections, thus managing the information that you normally record in MS Word. You can import MS Word documents from external sources, or export MS

Word documents and edit them in MS Word. The toolbars displayed with an MS Word field in E-Notebook are the toolbars that appear when you open MS Word.

For more information, see “Working with MS Word Sections” on page 554.

## MS Excel Spreadsheet Sections

MS Excel Section allows you to manage Excel spreadsheets in E-Notebook. Its main purpose is to provide you with a facility to create, modify, and save your Excel spreadsheets within E-Notebook environment.

You can import the MS Excel spreadsheets into E-Notebook. The section allows you to export and clear the slideshows as well. The toolbars displayed with an MS Excel field in E-Notebook are the toolbars that appear when you open MS Excel spreadsheets.

For detailed information on this topic, see “Working with MS Excel Spreadsheets” on page 550.

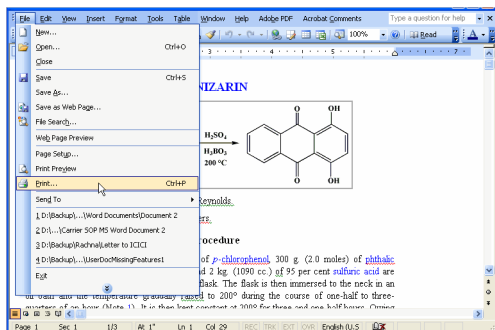
## Send2ENotebook and Send2File

You can send a file from another application to E-Notebook with **Send2ENotebook**, and have it appear within E-Notebook in PDF format. The objective of the **Send2** feature is to allow the convenient capture of various types of data from other applications into E-Notebook system. This is typically output from either instrument control applications or from various scientific analysis software. PDF is the format for **Send2** feature.

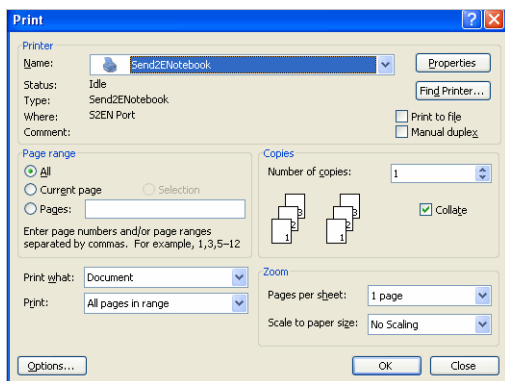
With the **Send2File** feature, you can also send such a file in PDF format to your network outside the E-Notebook so that you can bring it later into the E-Notebook whenever you require. This is useful for sending files from workstations that do not have the E-Notebook application installed.

To start the **Send2ENotebook** or **Send2File** process:

1. Open the document you wish to send and expand File (or whichever menu option accesses to the Print option).

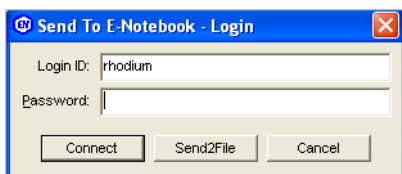


2. Select Print and a print dialog box appears.



3. Select the printer Send2ENotebook from the dropdown and click OK button.

A dialog appears prompting you to log into the E-Notebook.



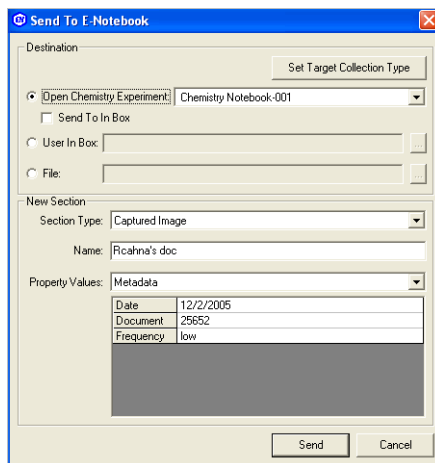
Click Connect button to send to E-Notebook and click the Send2File button to send to file.

## Working with Send2ENotebook

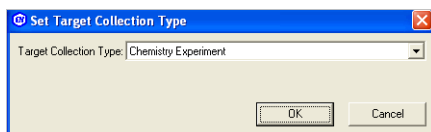
To Send a document to E-Notebook,

1. Open the document in the appropriate application (outside of E-Notebook).
2. Select the Print option in the application.
3. After you have selected the printer Send2ENotebook, a dialog appears prompting you to log into E-Notebook. Click the Connect button to send to E-Notebook

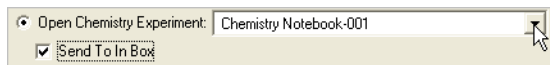
The following dialog box appears and you can set the destination where you wish to send the document in E-Notebook.




4. Click the Set Target Collection Type button and it displays a dialog where you can fill in the type of your collection and click OK.




5. Select the Notebook or Collection where you wish to send the document with the help of dropdown list.



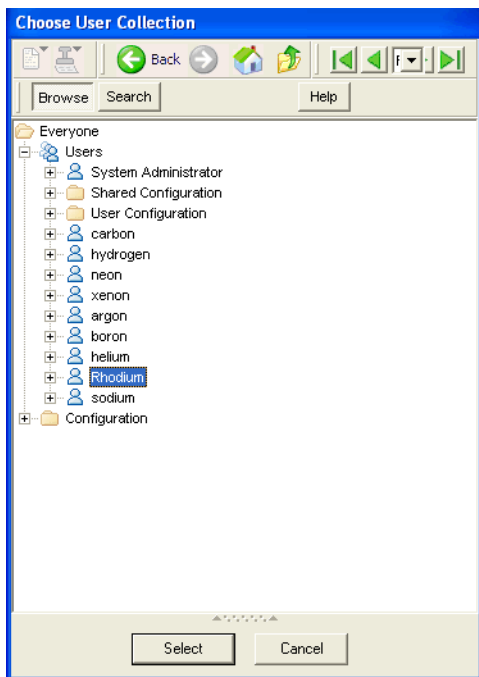
The checkmark  below is for the option to send the document in the Inbox of the Collection.

6. Alternatively, you can select User In Box if you wish to send the document to the Inbox in the User Collection.



- a. Click  to open the User Collection.

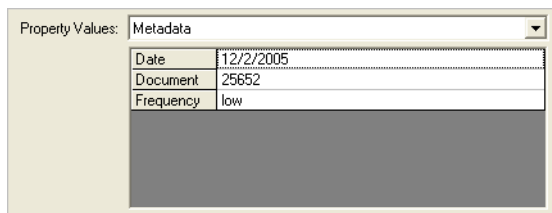
A dialogue appears:



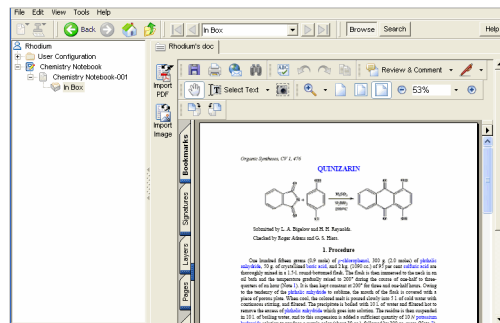
- b. Click **Select** and you can select the User.
7. Type the name of the section by which the document will appear in the E-Notebook collection in the following box:



8. Fill the properties in the Property Values List:



Click **Send** button to finish the **Send to E-Notebook** process:

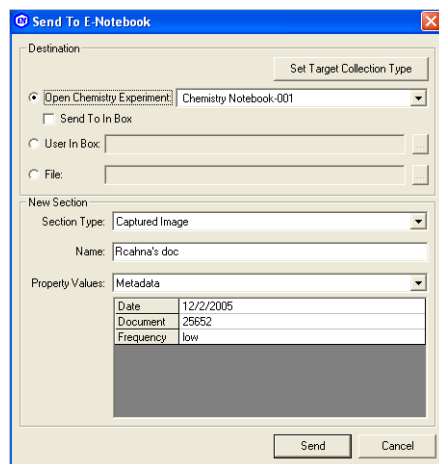


The document in PDF format gets added to your collection in E-Notebook as a different section.

## Working with Send2File

To start Send2File,

1. Open the document in the appropriate application (outside of E-Notebook).
2. Select the **Print** option in the application.
3. After you have selected the printer **Send2ENotebook**, the E-Notebook login dialog appears.
4. Click the **Connect** button and the following dialog box appears.

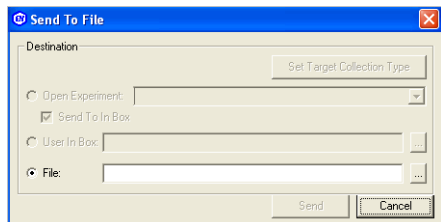



5. Select File option as:

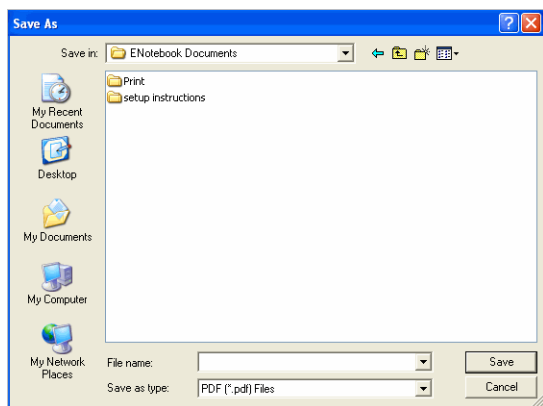


6. Alternatively, click the Send2File button to send to a location outside E-Notebook.

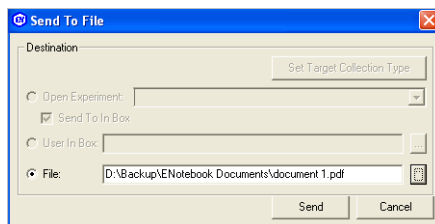
The following dialog box appears:



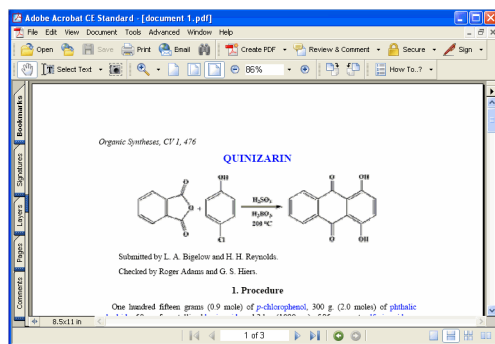
7. Click  to open the following destination window and you can set the destination where you wish to send the document. PDF is the only format:



8. Click Save and the dialog appears as:



9. Click the Send button to send the file to the specified location and close the Send2File process:



The document in PDF format gets saved to your specified location and you can bring it into the E-Notebook later.

## Enterprise Working Offline

E-Notebook makes it possible for you to work in offline mode. In offline mode, you are disconnected from the network. When you reconnect, you can upload the changes you made offline to the central, E-Notebook database. See “Working Offline” on page 546.

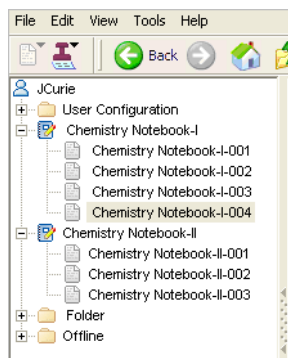
# Chapter 28: E-Notebook Features

## Browsing the Collection Tree

Collections, and their contents, are organized in a tree structure, called the Collection Tree, on the left side of the browsing screen. E-Notebook offers a number of options for browsing collections.

- To begin browsing collections, click the **Browse** button at the top of the screen.

The Collection Tree appears.



Use the Back and Forward arrows to the left of the Browse button to navigate the Collection Tree view. These arrows perform a similar function for the collection tree that Back and Forward web browser buttons perform for the browser window.

It is only possible for one E-Notebook user to edit an individual collection at a time. If another user is editing a particular Collection and you select the Collection in the tree, you will be presented with a message informing you that the Collection is locked for editing by the other user.

## Showing and Hiding Collections

The Collection Tree provides you with a means of expanding and contracting collections so that you only see the information you need.

To show the contents of a collection:

Click the plus sign next to the collection whose contents you wish to see.

The collection is expanded, and you can view its contents.

To hide the contents of a collection:

Click the minus sign next to the collection.

The collection is minimized, so that you cannot see its contents.

## Hiding the Collection Tree

It is possible to hide the Collection Tree if you would to increase the screen area you have for entering data into a section.

To hide the Collection Tree:

1. Move your cursor to the right boundary of the tree, so that the cursor becomes a double-headed arrow. ↔
2. Double-click.

The Collection Tree is hidden.

Alternatively, you may click the touch bar at the right-border of the Collection Tree.

To view the Collection Tree again,

1. Move your cursor to the left boundary of the section, until the double-headed arrow appears again.
2. Double-click. (Or, you may click the touch bar at the left boundary of the E-Notebook window).

The Collection Tree reappears.

## Limiting Collection Browsing

You can limit your browsing by selecting a root collection for the Collection Tree. The root collection becomes the highest browsing level in the Col-

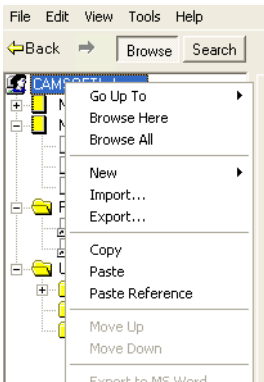


lection Tree. Limiting the Collection Tree view can make it easier to find specific information.

To set a root for the Collection Tree:

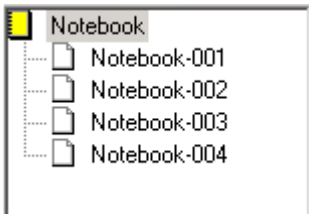
1. Click the **Browse** button at the top of the screen.  
The Collection Tree appears.
2. Right-click the collection you wish to be the root collection for browsing.

A menu appears.



3. Select **Browse Here**.

The collection you selected appears at the top of the collection tree.



## Browsing from Home

You can browse from your Home Collection, which contains all of the collections associated with you as a user of E-Notebook. This is the collection that appears when you first log in.

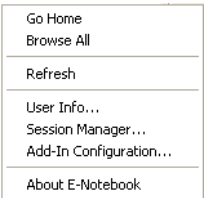
To browse to your Home Collection and bring the Home Collection to the top of the Collection Tree:

1. Click **Browse**.

The Collection Tree appears.

2. Right-click any blank area of the Collection Tree.

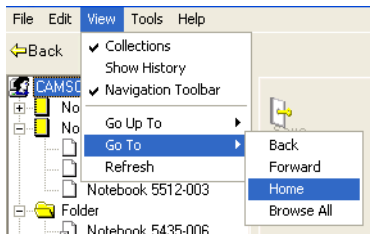
A menu appears.



3. Click **Go Home**.

The Home Collection appears at the top of Collection Tree.

Alternatively, you may select **View**, then **Go To**, then **Home** from the E-Notebook menu bar:



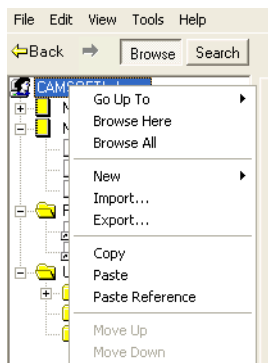
## Browsing at a Higher Level

You can browse at a higher level in the Collection Tree, and see all of the collections at that level.

To browse at a higher level:

1. Click **Browse**.
2. The Collection Tree appears.
3. Right-click a collection in the tree.

A menu appears.



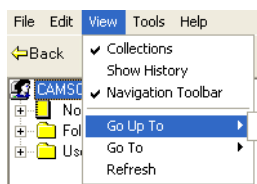
4. Select **Go Up To**.

The collections that either contain or reference the item are listed.

5. Select the collection that you wish to bring to the top of the Collection Tree.

The collection you selected appears at the top of the tree. Its contained collections and contained references are displayed.

Alternatively, you may select **View**, then **Go Up To** from the E-Notebook menu bar.



## Browsing the Entire Collection Tree

Browsing the entire Collection Tree enables you to see all of the E-Notebook collections at once.

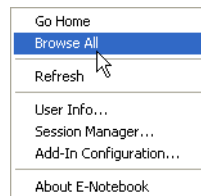
To browse the entire tree:

1. Click **Browse**.

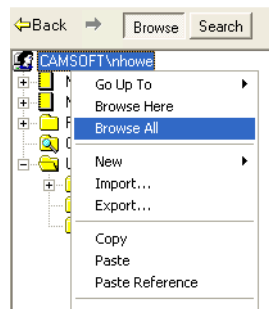
The Collection Tree appears.

2. Do one of the following

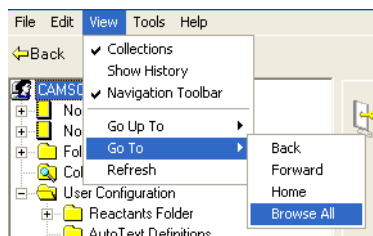
Right-click any blank area of the Collection tree, and select **Browse All** from the menu that appears.



Right-click any collection in the tree, and select **Browse All** from the menu that appears.



In E-Notebook menu bar, select **View**, then **Go To**, and **Browse All**.



**NOTE:** The *Browse All* command will only be available if you have the *Read* privilege for the collection at the top of the collection hierarchy. If you do not have *Read* privilege for the collection at the top of the hierarchy, it may be necessary to conduct a collection search in order to view some of the collections to which you have access. See “Searching” on page 605 for more information.

## E-Notebook Workflows

This portion of the guide describes the workflows in E-Notebook. The E-Notebook features can be

combined to support a number of different workflows.

## Reactions in E-Notebook

The following topics describe the features that are used in an E-Notebook reaction section:

- Drawing and Analyzing Reactions
- **Enterprise** Editing Structures Using ISIS/Draw
- Working with the Name to Structure Feature
- Working with the Reaction Toolbar
- The Stoichiometry Table
- **Enterprise** Working with Batch Explorer
- Working with AutoText

### Drawing and Analyzing Reactions

You can draw a reaction using the ChemDraw reaction field. When you draw a reaction, the stoichiometry grid is automatically populated with the properties of the reactants and products. If you remove a reactant or product from the stoichiometry grid, the corresponding structure will be removed from the reaction drawing.

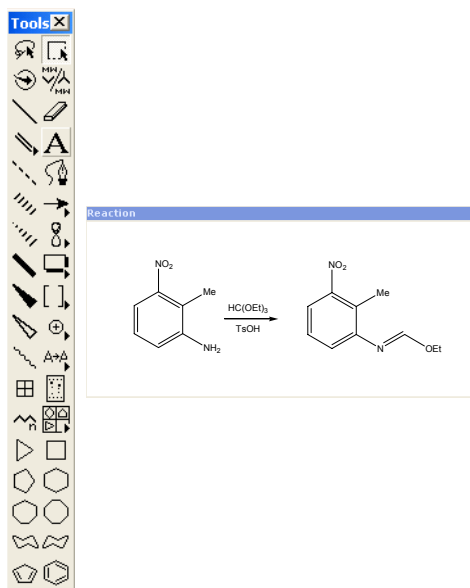
The ChemDraw Toolbar allows you to create a chemical structure by connecting frequently used substructures together. For more information about using the ChemDraw Toolbar, please see the ChemDraw User's Guide.

### Drawing a Structure or Reaction

To draw a reaction:

1. Click within a reaction field.

The ChemDraw toolbar appears.



2. Using the ChemDraw tools, draw a reaction, with reactants to the left of the arrow and products to the right.

**NOTE:** You can access a drawing menu by right-clicking in the structure window. This menu allows you to, among other things, copy and paste structures.

### Expanding the Drawing Window

To expand the drawing window:

1. Double-click the titlebar of the chemical structure field.  
The chemical structure field expands.
2. Using the ChemDraw tools, draw the structure or reaction.

When you are finished editing, double-click the frame of the chemical structure field to return it to its original size in the form.

### **Enterprise** Working with ISIS/Draw

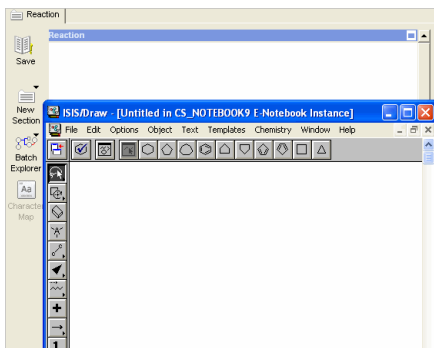
E-Notebook allows you to draw a reaction using ISIS Draw. If your system is configured to use

ISIS, you will be able to draw chemical structures using the ISIS/Draw tools. For more information about using the ISIS Draw Tool, please see the ISIS Draw User's Guide.

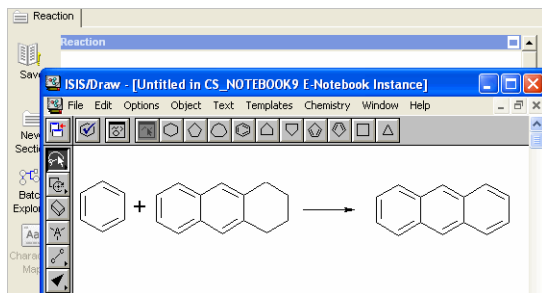
## Drawing a Structure or Reaction


To draw a reaction:

1. Double-click within the reaction field and ISIS Draw page will launch as shown:

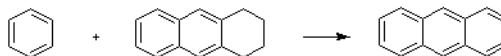


2. Using the ISIS Draw tools, draw a reaction, with reactants to the left of the arrow and products to the right:



When you are finished editing, click on the close icon,  to return to E-Notebook:

tion



## Working with the Name=Struct Feature

With this feature, the names of compounds you draw in a reaction are added to the stoichiometry grid automatically, using ChemDraw's Name=Struct feature. Prior to using this feature, you need to have ChemDraw *Ultra* installed on your machine.

The Name=Struct feature is designed to be as smart as a real chemist, interpreting chemical names into their most reasonable structures as they are actually used by chemists.

To convert a name to a structure,

1. Draw the structures in the reaction section.
2. Save your changes.

The structure names appear in the stoichiometry grid.

If you make changes to the reaction drawing, the names will be updated automatically.

If you manually change the name of any structure in the grid, your change will not be overwritten if you alter the corresponding structure drawing.

## Working with the Reaction Toolbar

The reaction toolbar provides a number of features for managing the reactants and products in your reaction section.

The reaction toolbar normally appears just below the reaction field.



## Adding Structures with the Reaction Toolbar

With the reaction toolbar, you can add reactants and products from your Acronyms collections in E-Notebook. There are two methods for adding a structure with the reaction toolbar:

- Using the Add Dialog to Add a Structure
- Using Quick Add to Add a Structure

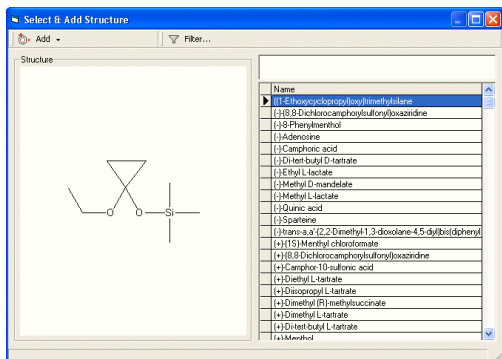
### Using the Add Dialog to Add a Structure

The Add button on the reaction toolbar brings up a dialog that allows you to select a structure and add it to your reaction section.

To add a structure:

1. Click the Add button in the reaction toolbar.

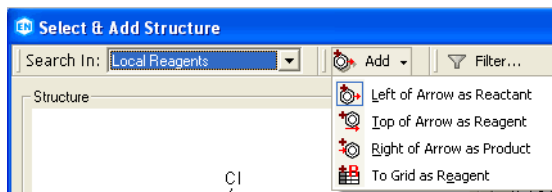
The Select and Add Structure dialog appears, displaying the acronyms in your Reactants Folder:



2. Click the name of a structure in the list that appears in the right frame to select it.

The structure is selected, and its structure drawing appears.

3. Click the down arrow by the Add button to display the options for adding the structure to the reaction section.



The options are:

**Left of Arrow as Reactant** – adds the structure to the reaction drawing to the left of the arrow, and adds it to the reactants table in the grid.

**Top of Arrow as Reagent** – adds the structure to the reaction drawing above the arrow, and adds it to the reactants table in the grid.

**Right of Arrow as Product** – adds the structure to the reaction drawing to the right of the arrow, and adds it to the products table in the grid.

**To Grid as Reagent** – adds the structure to the grid only, in the reactants table.

4. Select the option you desire from the menu.
5. Click the Add button.

The structure is added to the reaction section in the manner you selected.

There are several options for filtering the acronyms displayed in the dialog. See “Filtering Acronyms with the Reaction Toolbar” on page 531.

### Using Quick Add to Add a Structure

With the Quick Add button, you can bypass the Add Structure dialog and remove several steps from the process of adding a structure to your reaction.

To add a structure with the Quick Add button:

1. Select an acronym from the dropdown list that appears in the reaction toolbar. This dropdown lists all of the acronyms in your Reactants Folder.
2. Click the down arrow by the Quick Add button in the reaction toolbar.

The options for adding the structure to the reaction section are displayed. The options are:

**Left of Arrow as Reactant** – adds the structure to the reaction drawing to the left of the arrow, and adds it to the reactants table in the grid.

**Top of Arrow as Reagent** – adds the structure to the reaction drawing above the arrow, and adds it to the reactants table in the grid.

**Bottom of Arrow as Solvent** – adds the structure to the reaction drawing below the arrow, and adds it to the reactants table in the grid.

**Right of Arrow as Product** – adds the structure to the reaction drawing to the right of the arrow, and adds it to the products table in the grid.

**To Grid as Reagent** – adds the structure to the grid only, in the reactants table.

**To Grid as Solvent** – adds the structure to the grid only, in the solvents table.

3. Select the option you desired.
4. Click the Quick Add button in the reaction toolbar.

The structure you selected is added to your reaction.

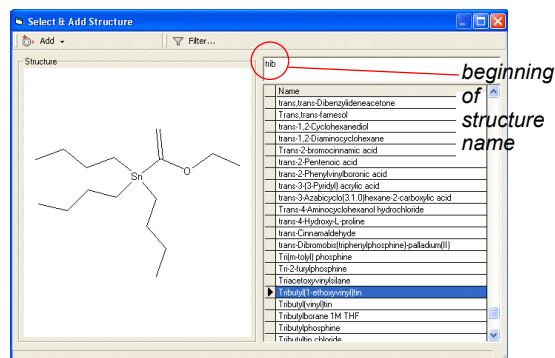
## Filtering Acronyms with the Reaction Toolbar

The reaction toolbar offers several options for filtering acronyms before selecting one to add to your reaction section.

To jump to a particular structure:

1. Click the **Add** button in the reaction toolbar.  
The **Select and Add Structure** dialog appears, displaying the acronyms in your Reactants Folder.
2. Begin typing the name of the structure you wish to select.

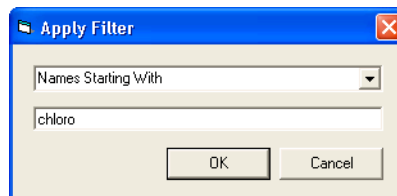
The selected structure changes to match the text you have typed.



## Applying a Filter

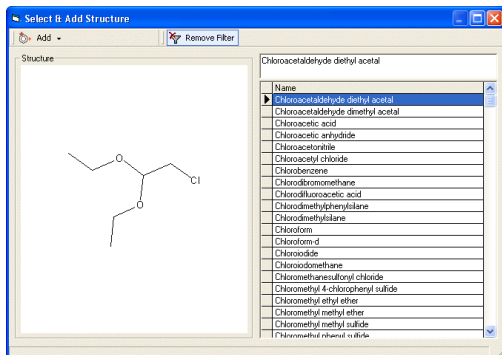
To filter the acronyms that are displayed in the dialog:

1. Click the **Filter** button at the top of the dialog.  
The **Apply Filter** window is displayed.



2. From the dropdown list, select either **Names Starting with** or **Names Containing**.
3. Enter the text for the filter. In this example, **chloro** was entered.

- Click OK to close the Apply Filter window.  
The filtered list of acronyms is displayed.



### Removing a Filter

To remove a filter:

- Click the **Remove Filter** button.  
The filter is removed, and the entire list of acronyms is displayed.

### Defining a New Acronym with the Reaction Toolbar

You can use the reaction toolbar to add new acronyms to reactants collections in E-Notebook.

To do this:

- In the reaction drawing, use the ChemDraw tools to select the structure you wish to define as an acronym.
- Click the down **Define** button in the reaction toolbar.

A dialog appears, prompting you to select the Acronyms collection where you wish to add the new acronym.

graphic

- Select the collection and click the **Create Here** button.

The structure you selected is added to the collection.

- Close the dialog.

### Deleting a Structure with the Reaction Toolbar

You can use the reaction toolbar to delete structures from a reaction.

To do this:

- In the reaction drawing, use the ChemDraw tools to select the structure you wish to delete.
- Click the down **Delete** button in the reaction toolbar.

The structure is deleted.

### Working with the Stoichiometry Table

The stoichiometry table calculates and stores stoichiometric data for a reaction. It is filled in automatically as you modify a reaction drawing. You may change values manually as well.

It is also possible to add reactants from the Collection Tree to the stoichiometry table.

Depending upon your system configuration, certain of these properties may not appear, or additional properties may be present.

Reactant properties:

- Name** – the text name of the reactant.
- Molecular Formula (MF)** – the chemical formula that shows the number and kinds of atoms in a molecule of the reactant.
- Limiting?** – a yes or no value, indicating whether the reactant is the limiting reactant in the reaction.
- Sample Mass** – the total quantity of the reactant sample.
- Reactant Mass** – the total quantity of the reactant.
- Molecular Weight (MW)** – sum of the atomic masses (atomic weights) of the atoms in the molecular formula, as set forth in the periodic table.

- **Formula Mass** – sum of the atomic masses (atomic weights) of the atoms in the formula of the compound. This tends to be a more general term than molecular weight, and can be applied to compounds such as ionic compounds.
- **% by Weight (%Wt)** – the percentage of reactant in the sample.
- **Moles** – the number of molecules of the reactant /  $6.023 \times 10^{23}$ .
- **Equivalents** – the proportion of the reactant relative to the other components in the reaction.
- **Molarity** – the number of moles per volume of the reactant.
- **Volume (Vol)** – the three-dimensional measurement of the reactant, such as mL, L, etc.
- **Density (D)** – the mass per unit volume of the reactant.
- **Loading** – the number of reactant moles per amount of the reactant sample.

#### Product Properties:

- **Name** – the text name of the product.
- **Molecular Formula** – the chemical formula that shows the number and kinds of atoms in a molecule of the product
- **Theoretical Mass** – the calculated mass of product the reaction yields.
- **Actual Mass** – the actual mass of product the reaction yields.
- **% Yield** – the ratio of the actual amount to the theoretical amount.
- **% Purity** – the percentage of the actual amount that is the product.
- **Molecular Weight** – the sum of the atomic masses (atomic weights) of the atoms in the molecular formula, as set forth in the periodic table.

- **Formula Mass** – the sum of the atomic masses (atomic weights) of the atoms in the formula of the compound. This tends to be a more general term than molecular weight, and can be applied to compounds such as ionic compounds.
- **Theoretical Moles** – the calculated number of moles of the product that the reaction yields.
- **Actual Moles** – the actual number of moles of the product that the reaction yields.
- **Equivalents** – the proportion of the product relative to the other components in the reaction.
- **Loading** – the number of product moles per amount of the product.

### Adding Information to the Stoichiometry Table

You can manually type stoichiometric information into the stoichiometry table of a reaction section, as well as add reactants from the Collection Tree.

To manually add information to a Stoichiometry Table:

1. In the reaction section, click a cell in the stoichiometry table.
2. Type the information into the cell.

The information is saved, and the text is displayed in blue. If you have entered a number and there are default units associated with the property, the units are displayed. (See “Working with Numerical Units in Tables” on page 569 for more information).

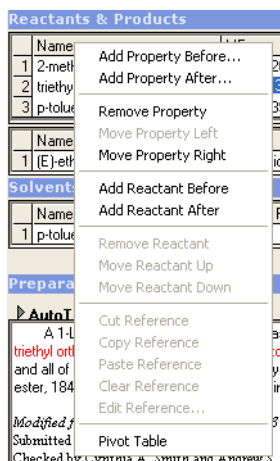
3. Repeat the process for other cells in the table, if necessary.

To enter reactant information into the Stoichiometry Table:

1. Right-click the a cell in the the Reactants section of the Stoichiometry Table.

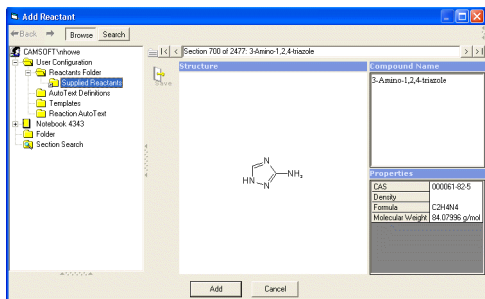


A menu appears.



2. Select **Add Reactant After**, to add a reactant after the selected item or **Add Reactant Before**, to add a reactant before the selected item.

A dialog box appears. You are prompted to browse for the reactant you wish to select.



3. Browse to the reactant section with the reactant you wish to add. (See the Working with Reactants portion of this guide for information about creating and using reactants collections. If you wish, you may add a new reactant to E-Notebook from the Add Reactant dialog). Information about the reactant is displayed on the right side of the dialog box.
4. Click **Add**.

The dialog box closes, and the Stoichiometry Table is populated with information about the reactant.

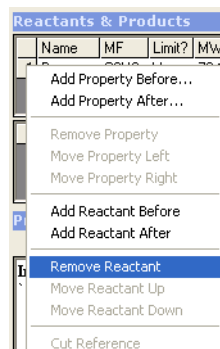
## Removing Reactants and Products from the Stoichiometry Table

You can remove all of the information pertaining to a particular product or reactant from the Stoichiometry Table automatically. If the reactant you remove is the limiting reactant in the reaction, the first remaining reactant becomes the limiting reactant.

To remove a reactant or product from the stoichiometry table:

1. Right-click the reactant or product you wish to remove.

A menu appears.



2. Select **Remove Product** if it is a product, or **Remove Reactant** if it is a reactant.

A message appears, asking you if you are sure you want to delete the reactant or product.

3. Click **Yes**.

The reactant or product is removed from the Stoichiometry Table. If it was present in the reaction drawing, it is removed from the drawing as well.

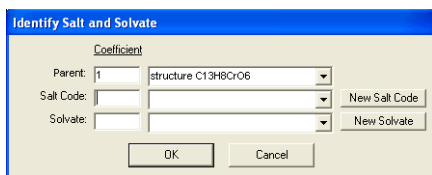
## Working with Salts and Solvates in a Reaction Section

In an E-Notebook reaction section, it is now easier to represent a compound that is present in a salt or hydrated form. You can enter a formula that accounts for salts and hydrates.

To enter a formula,

4. In the stoichiometry grid, double-click the molecular formula cell.

A dialog appears.



5. Select a salt code or solvate from the drop-down list. This list displays all of the salt codes and solvates in your User Configuration folder.
6. Click OK to close the dialog

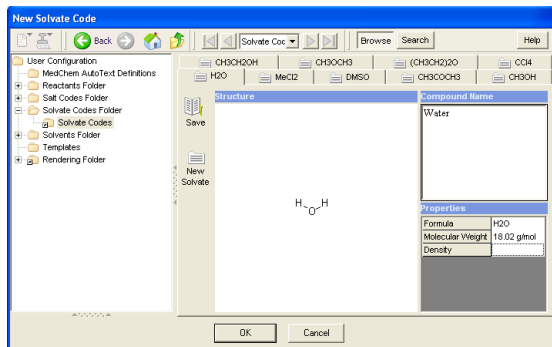
The formula you entered appears in the stoichiometry grid.

### Adding New Solvates and Salts

To add a solvate or salt that does not appear in the dropdown list:

7. Click the **New Solvate** button. (Or, to add a new salt code, click the **New Salt Code** button).

A dialog appears and you can browse to solvate or salts in your User Configuration folder.




8. Click **New Solvate** (or **New Salt Code**) and enter the structure and name.

## Enterprise Working With Batch Explorer

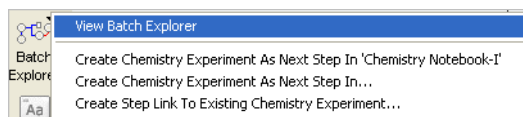
With the batch explorer, you can view a reaction tree showing successors and predecessors of a selected batch or compound.

To view Batch Explorer in the reaction section:

Click the Batch Explorer tool icon  in

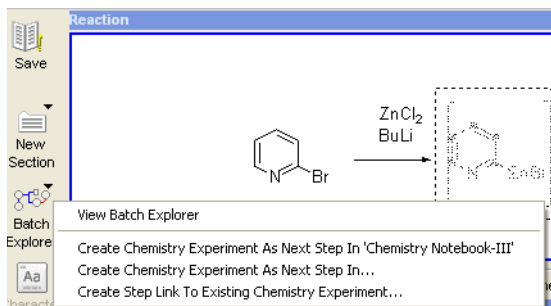
the reaction section.

A menu appears:



The options are:

- **Create Chemistry Experiment As Next Step In same 'Chemistry Notebook'** – creates a new page/experiment within the same notebook. To do this, select the product of the reaction and click the **Create Chemistry Experiment As Next Step In Chemistry Notebook** link.

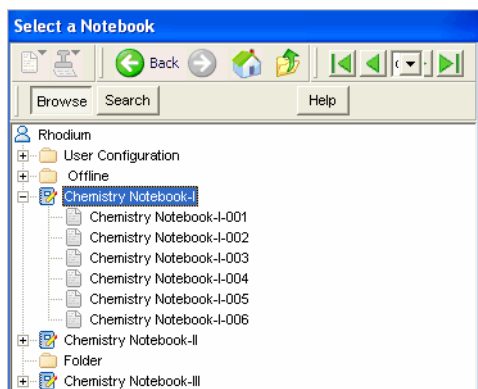


- **Create Chemistry Experiment As Next Step In Another 'Notebook'** – creates a new page/experiment in the same/different chemistry notebook.

To do this:

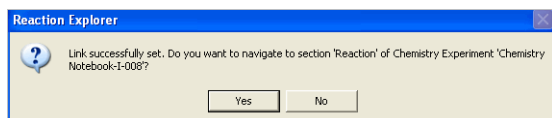
9. Select the product of the reaction and click the **Create Chemistry Experiment As Next Step In** link.

A dialog appears, prompting you to select the Notebook collection where you wish to create the experiment.



10. Click Select.

Another dialogue appears which tells you that a link is set and asks you to navigate to the Reaction section of the selected Notebook collection.

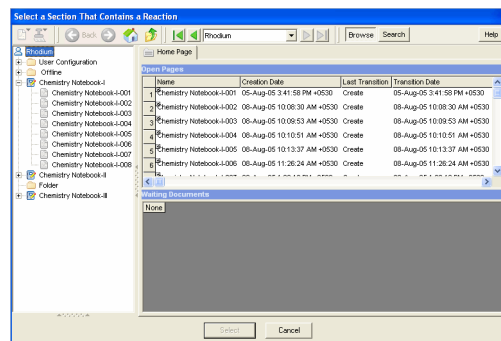


- **Create step Link To Existing 'Chemistry Experiment'** – creates a link between two existing E-Notebook reactions in same/different notebooks such that the product of one reaction is a reactant in the other. Both the reaction sections should contain valid reactions. Hence a link is created between two pre-existing pages.

To do this,

11. Click the Create Chemistry Experiment As Next Step In link.

A dialog appears, prompting you to select a section that contains a Reaction.



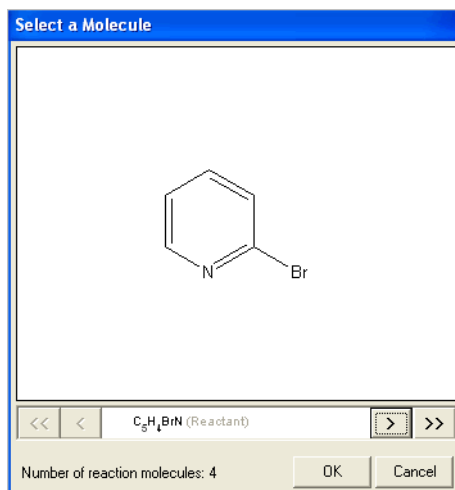
12. Click Select.

Another dialogue appears which tells you that a link is set and asks you to navigate to the Chemistry Experiment of the selected Notebook collection.

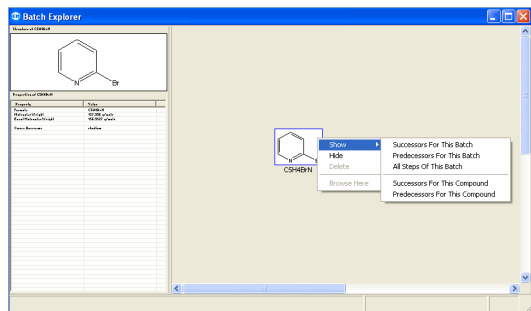
- **View Batch Explorer** – displays a reaction tree showing successors and predecessors of a selected batch or compound.

To do this, select View Batch Explorer.

A dialogue appears, prompting you to select a molecule to explore. Use the scroll buttons to select a molecule and click OK.



The Batch Explorer window appears, and you can right-click the molecule to view the options to display predecessors or successors or all steps of the batch.

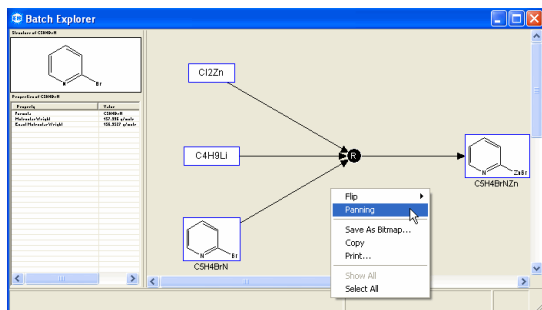


## Panning Experiments in Batch Explorer

You can use the panning feature to zoom in on a particular portion of the reaction tree.

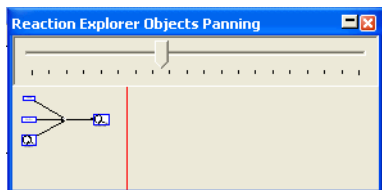
For panning an experiment:

13. To view the panning window, right-click within a blank portion of the Batch Explorer window. A menu appears:

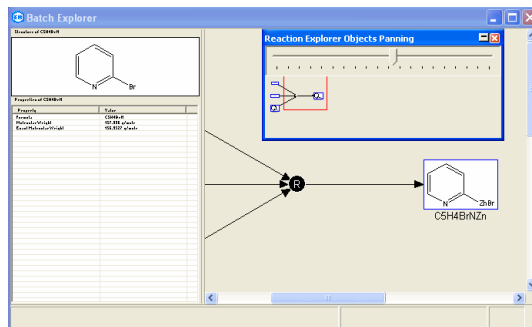


14. Select Panning.

A dialog appears which allows you to use the panning feature to zoom in on a particular portion of the reaction tree.



15. Select the portion of the reaction tree in the panning dialog and zoom to see the selected portion as:

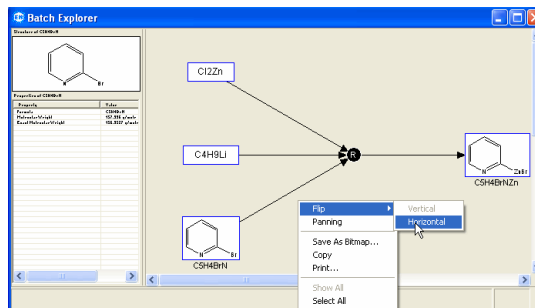


## Flipping Experiments in Batch Explorer

You can flip experiments vertically or horizontally in the Batch Explorer window in E-Notebook.

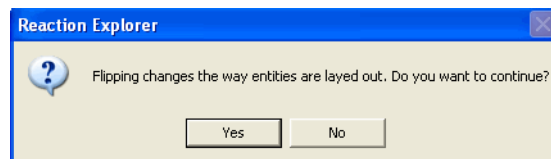
To flip an experiment:

16. To view the flipping window, right-click within a blank portion of the Batch Explorer window. A menu appears.

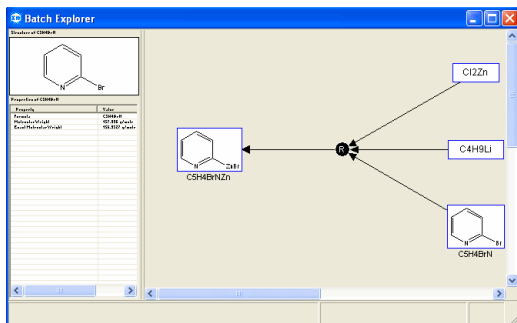


17. Select Flip and then Vertical or Horizontal.

A dialog appears which tells you that flipping will change the way the entities are laid out and asks you to continue.



18. Click the **Yes** button to flip and the following window with flipped reaction sequence appears:

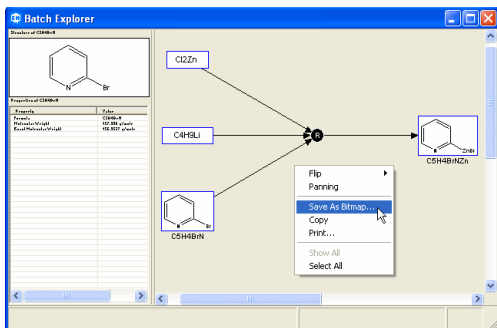


## Saving Experiments as Bitmap in Batch Explorer

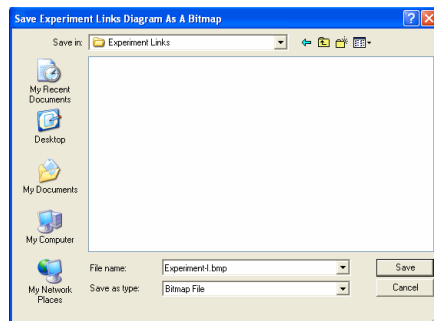
E-Notebook provides you with this feature to save your Experiment Links Diagram from Batch Explorer window as Bitmap files.

To save an experiment as Bitmap:

1. Right-click within the blank portion of the Batch Explorer window and a menu appears:



2. Click **Save As Bitmap...** to open the following destination window and you can set the destination where you wish to save the Experiment Link Diagram. Bitmap is the only format:



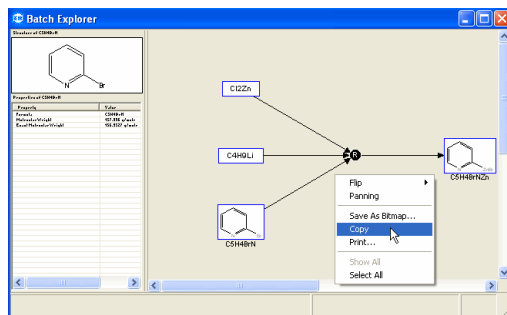
3. Click the **Save** button in the destination window to save the Experiment Link Diagram and dismiss the dialog.

## Copying Experiments in Batch Explorer

E-Notebook provides you with this feature to copy your Experiment Links Diagram from the Batch Explorer window.

To copy an experiment:

1. Right-click within a blank portion of the Batch Explorer window to copy the experiment. A menu appears:



2. Click **Copy** to copy the Experiment Link Diagram.
3. Paste the Experiment Link Diagram at your desired location.

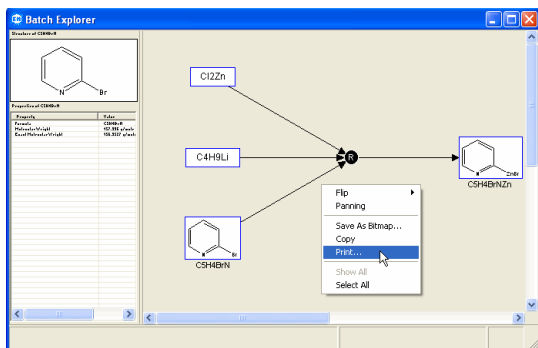
## Printing Experiments in Batch Explorer

You can print your Experiment Links Diagram from the Batch Explorer window to maintain your hardcopy archives.

To print an experiment:

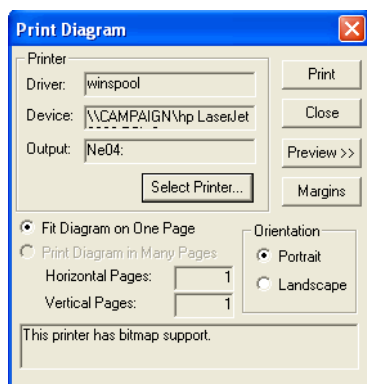
4. Right-click within a blank portion of the Batch Explorer window.

A menu appears:



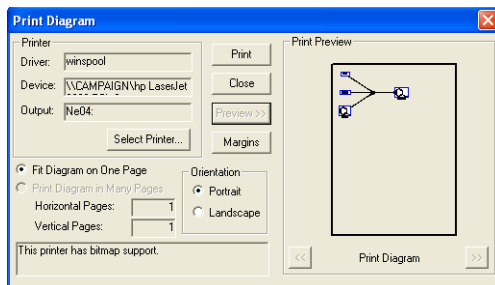
5. Select Print...

A Print Diagram dialog is displayed which allows you to make your selections:



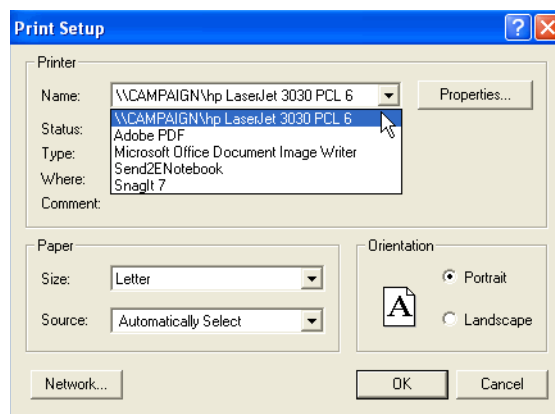
6. Click the Margins button to set the page margins.

7. Click Preview button to see the Print Preview as shown below:



8. Click the Select Printer button to select the printer.

The printer dialog box appears, and you can select the printer:



9. Make all your selections and click the Print button.

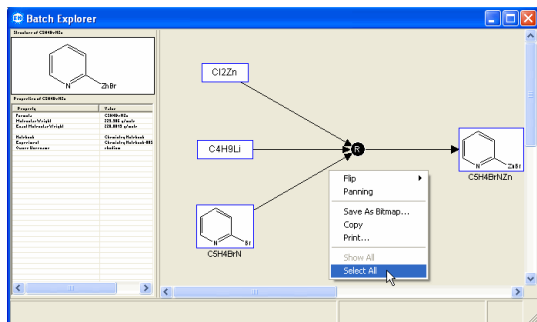
The whole Experiment Link Diagram or portion of the reaction tree you selected is printed.

## Selecting Experiments in Batch Explorer

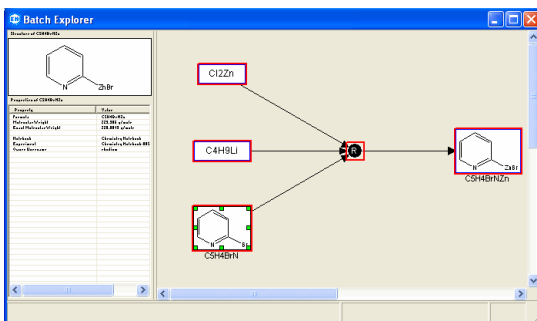
E-Notebook provides you with this feature to select the whole Experiment Links Diagram at once in Batch Explorer window and perform other functions.

To select the whole experiment:

10. Right-click within a blank portion of the Batch Explorer window to select the experiment. A menu appears:



11. Click Select All to select the whole Experiment Link Diagram, which looks like:

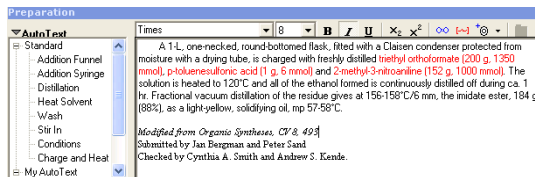


12. Perform the desired action on the selected Experiment Link Diagram.

## Working with Autotext

With the Autotext feature, you can add predefined fragments of text to a field. This allows you to create the contents of a text field quickly. You may also add text that is pulled from other fields, for example, reaction properties or values in the stoichiometry grid of a reaction section. As you update the reaction drawing and the stoichiometry grid, your changes are reflected in the AutoText.

The example below shows the Preparation field of the reaction section.



## Inserting Reactants and Products with AutoText

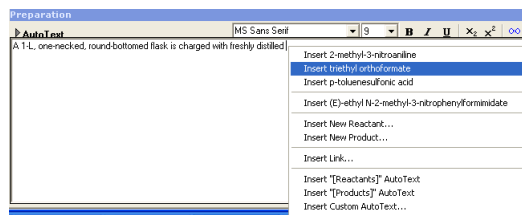
When you modify reactants and products in the reaction drawing or stoichiometry grid, the AutoText will be updated automatically.

### Inserting Reactants and Products from the Stoichiometry Grid

To insert a reactant or product from the stoichiometry grid,

1. Right-click within the text field.

A menu appears.



2. Select Insert, followed by the name of the reactant or product.

The name and properties of the reactant or product you selected are inserted. The text appears in a different color, and will be updated automatically if you change the name or properties in the stoichiometry grid.



### Inserting New Reactants and Products

To insert a new reactant or product that is not yet present in the stoichiometry grid,

1. Right-click within the text field.

2. Select Insert New Reactant... or Insert New Product... from the menu that appears.

A blank row is added to the reactants or products table.

3. Add information about the reactant or product to the blank row.

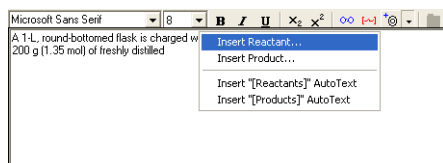
The reactant or product is inserted into the stoichiometry grid, and into the text field.

You may also use the reactants/products button to populate the AutoText. To do this,

1. With your cursor in the text field at the point where you wish to insert the reactant or product, click the reactants/products button



A menu appears.



2. Select one of the options:

**Insert Reactant...** – allows you to browse to a new reactant, and add it to the text and stoichiometry grid.

**Insert Product...** – allows you to browse to a new product, and add it to the text and stoichiometry grid.

**Insert “[Reactants]” AutoText** – inserts the text “[Reactants]”, which you may then right-click to select a reactant from the stoichiometry grid, or to browse to a new reactant.

**Insert “[Products]” AutoText** – inserts the text “[Products]”, which you may then right-click to select a product from the stoichiometry grid, or to browse to a new product.

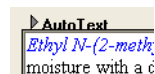
The text is updated automatically if you change the properties of the reactant or product.

## Adding Items from the AutoText Pane

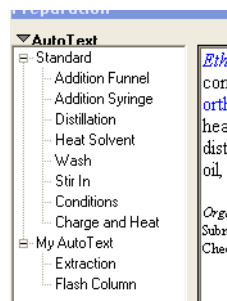
You can populate the text field by selecting items from the AutoText pane. If you wish to add your own, custom AutoText to this pane, you can set up your own AutoText definitions. See “Creating New Autotext Definitions” on page 543.

To add AutoText items to the text field:

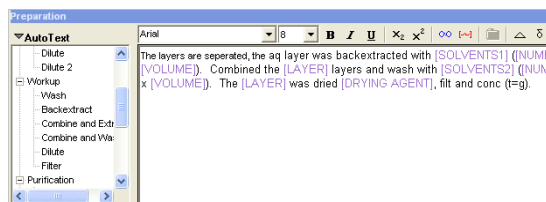
1. Click the triangle button next to the word “AutoText” in the upper left corner of the text field.



The AutoText pane appears, listing the available AutoText items.



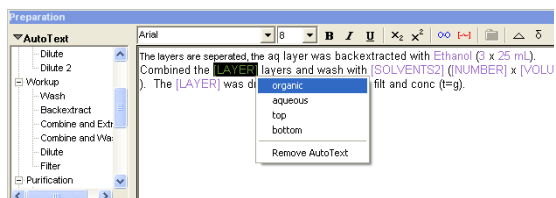
2. Double-click any of the items in the list to insert the corresponding AutoText. (In this example, Back extract was double-clicked).



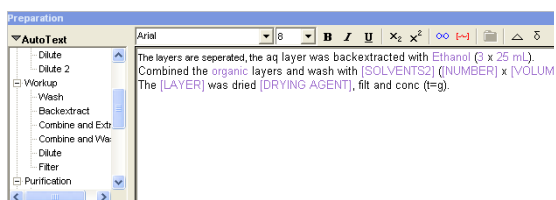
3. If words appear in different colored text between brackets, this indicates that there are multiple, possible values for the text. Right-click the text within brackets to view a drop-



down list of the choices, and select one of the values. In the example shown below, several possible choices are listed for the layers.

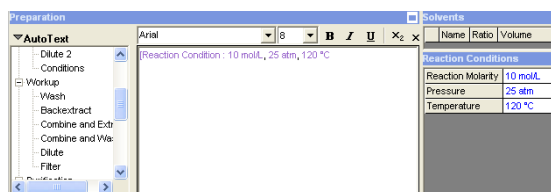


Organic was selected, and filled in automatically:



4. You may right-click the colored text again to modify your selection.


Certain items in the AutoText list may refer to other data in the section. In the example below, double-clicking "Conditions" in the AutoText pane automatically fills the Reaction Conditions into the text field. (The Reaction Conditions are shown in the right side, below).



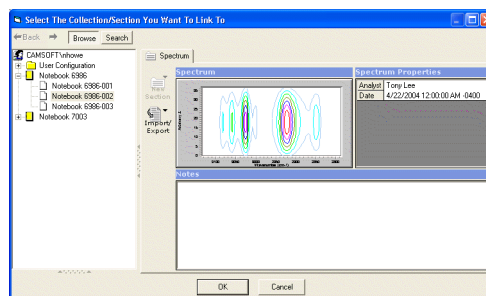
## Inserting Links with Autotext

From a text field, you can insert links to other sections and collections in E-Notebook

To do this,

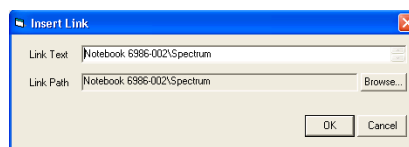
1. Click the  Link button in the toolbar of the text field.

A dialog appears, prompting you to select a collection or section for the target.



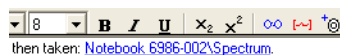
2. Browse to the collection or section, and click the OK button.

A dialog appears, prompting you to enter the text that will appear with the link.



3. Enter the text or accept the default text, and click the OK button.

The link appears within the text field.



4. Double-click the link to browse to its target. Alternatively, you may right-click within the text field, and select Insert Link... from the menu that appears. Then follow the steps given above.

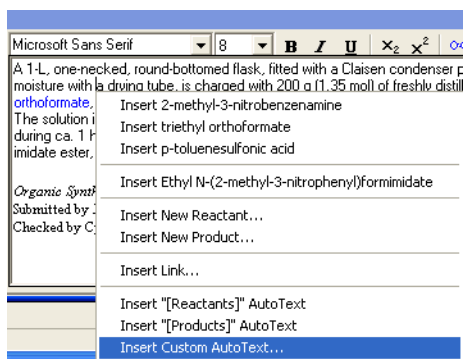
## Inserting Custom Autotext

From a text field, you can insert custom AutoText.

To do this,

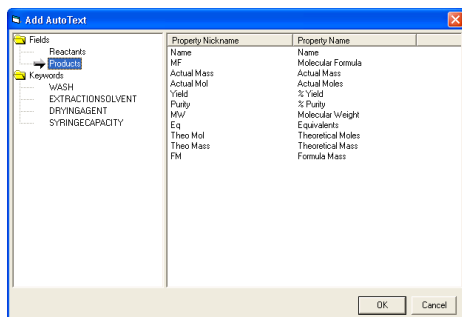
1. Right-click within the text field

A menu appears.



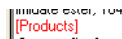
2. Select Insert Custom AutoText...

The Insert AutoText dialog appears.

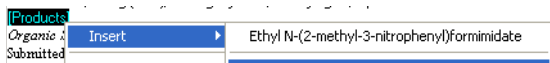


3. Select one of the AutoText items in the left frame. In this example, Products is selected.
4. Click OK.

The AutoText appears in the text field.



5. Right-click the AutoText to see the options associated with it, as shown in the example below.

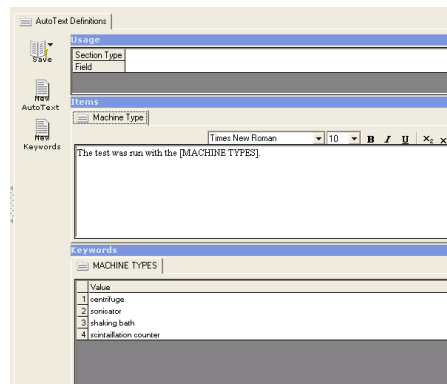


## Creating New Autotext Definitions

Depending upon your system configuration, it may be possible for you to set up your own AutoText definitions for use in E-Notebook text fields. You can then use these predefined fragments to add text to the styled text field automatically.

1. Right-click the User Configuration point to New, then select AutoText Definitions. (Or, select an existing AutoText collection to modify, by clicking the collection in the tree).
2. Enter a name for the new collection.
3. Enter the following information:

In the example below, AutoText has been set up so that a user may automatically enter a sentence regarding a machine type, and select from a list of several machine types. Double-clicking **Machine Type** in the AutoText list for any styled text field would cause the corresponding sentence to appear. Then, the user would right-click [MACHINE TYPES] to select from the list of machine types.



**TIP:** The title of the keywords tab must match the field descriptor exactly. In this case, MACHINE TYPES is the name of the keywords tab, and [MACHINE TYPES] appears in the AutoText item.

### Autotext Based on Other Fields in the Section

You may also set up autotext that will fill in the values from property lists and tables in a section. To do this, you use a field name as a keyword in an AutoText Item. The keywords and the field names must match exactly in order for the substitution to take effect.

### Property Lists

For the AutoText Item to populate the styled text field with all of the properties in a property list,

simply use the name of the property list as the keyword in the AutoText Item. For example, say there is a Conditions field, which is a property list that contains reaction conditions. The AutoText Item **Conditions: [CONDITIONS]** will fill in all of the properties in the Conditions property list, for example, **Conditions: (Pressure: 200 atm, Temperature: 100 °C).**

The keyword **CONDITIONS** followed by a property name, such as **[CONDITIONS:Temperature]**, will populate the styled text field with that specific property — for example, **Temperature: 100 °C.**

## Tables

As with Property Lists, the AutoText Item referring to a Table should contain bracketed UPPER-CASE keywords. For example:

“**[REACTANTS1]** is added dropwise to a 500 ml round-bottom flask charged with **[REACTANTS2]** in **[SOLVENT]**.”

**[REACTANTS1]**, **[REACTANTS2]**, and **[SOLVENT]** are replaced by the complete description of a compound from one of these tables. **REACTANTS1** refers to a column in the table **REACTANTS** (or, if the table is pivoted with properties appearing as columns, it refers to a row). **REACTANTS** is the name of the table field.

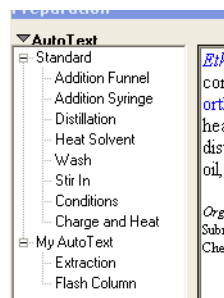
In this case, the number — such as in **REACTANTS1** and **REACTANTS2** — is used to indicate that different compounds are to be used in the AutoText. In order to determine which reactant is to be used where more than one is present in the reactants table, the user right-clicks the keyword that appears within brackets. This displays a popup menu containing all of the possible values.

The description that populates the styled text field consists of the name (or text of the form **Reactant 1** if the name is absent) followed by a list of the properties of that compound.

To select individual properties, an AutoText Item can contain a keyword followed by a property name, e.g., **[REACTANTS:Amount]** is replaced by the value from the Amount property for a reactant.

## Section Names as Categories

If you add multiple sections to an AutoText Collection, the section names will appear as categories in the autotext list. For example, **Standard** and **My AutoText** are two section names that appear as categories below:



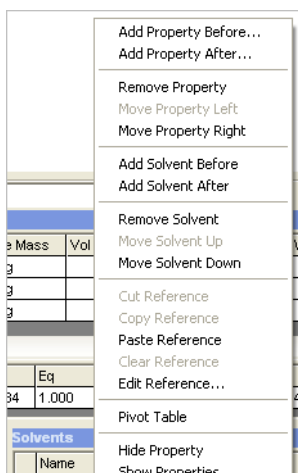
## Working with Solvents in a Reaction Section

In E-Notebook, you may populate the solvents in the reaction section from the solvents folder in User Configuration Folder. These solvents are named shortcuts for the commonly used solvents.

To enter a solvent into the Solvents Table:

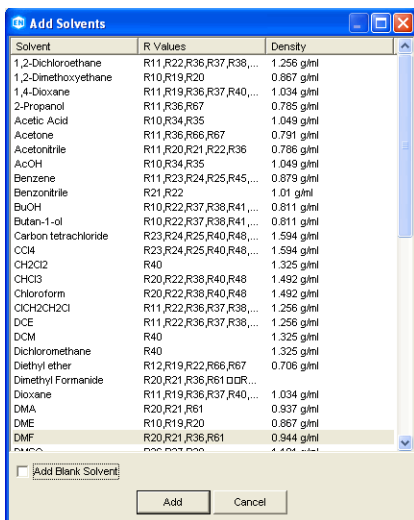
1. Right-click a cell in the Solvents Table of the reaction section.

A menu appears.



2. Select **Add Solvent After** to add a solvent after the selected item, or **Add Solvent Before** to add a solvent before the selected item.

A dialog box appears. You are prompted to browse for the solvent you wish to select.



3. Browse to the solvents folder with the solvent you wish to add. Select a solvent from the list. This list displays all of the solvents in your User Configuration folder.

4. Click **Add** to close the dialog.

The formula you entered appears in the solvents table.

If a solvent which you wish to add in the solvents table is not listed in Solvents Folder in your User Configuration Folder, then you can manually add that in the table cell.

To do this:

1. In the reaction section, right-click a cell in the solvents table.
  2. Select **Add Solvent After** or **Add Solvent Before**, to add the solvent.
- The Add Solvent dialog appears once again.
3. Checkmark the box **Add Blank Solvent** at the bottom of the dialog box.
  4. Click **Add** to close the dialog.

Solvents			
	Name	Ratio	Volume
1	DMF	1.000	500 ml
2	Benzene	1.000	150 ml
3	CHCl <sub>3</sub>	1.000	150 ml
4	BuOH	1.000	230 ml
5		1.000	▼

A blank row is added to the solvents table in the reaction section where you can fill the solvent of your choice manually.

Repeat the process for other cells in the table, if necessary.

**Enterprise**

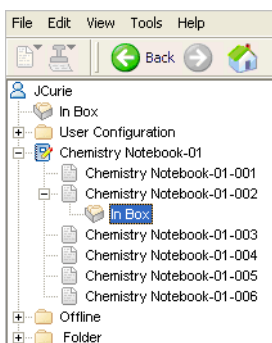
## Using the Inbox

The Inbox in E-Notebook allows the addition of various types of documents as well as graphical data into the E-Notebook system, typically output from either instrument control applications or from various scientific analysis software.

To view the Inbox of a particular collection:

1. Double-click the collection (or click the plus sign next to it) to expand it and view its contents.

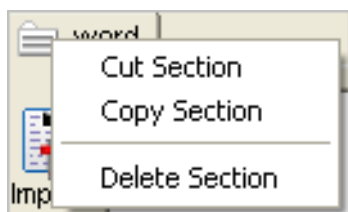
The collection expands to show the Inbox.



2. Click the Inbox to select it.

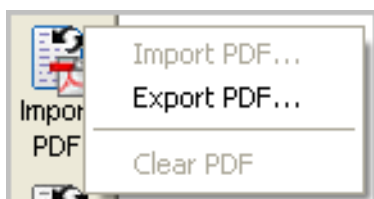
The sections in the Inbox appear in the right frame.

3. Click the section menu to select one of the sections to cut, copy, etc. as shown:



You can export the PDF document in the Inbox to a location outside the E-Notebook just as you would do in the 'Captured Image sections'.

4. Click Export PDF:



**Enterprise**

## Working Offline

E-Notebook makes it possible for you to work in offline mode. In offline mode, you are disconnected from the network. When you reconnect, you can upload the changes you made offline to the central, E-Notebook database.

In some cases, the system will be configured to prevent you from working offline if you are connected to the network.

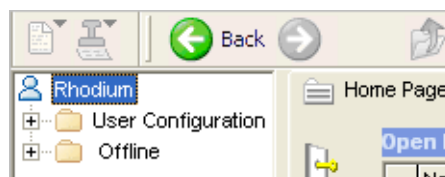
## Working With the Offline Folder

To work in offline mode:

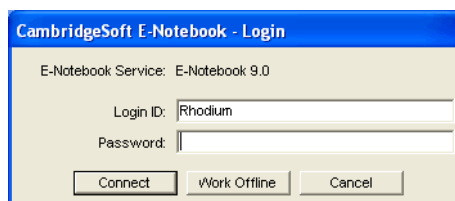
1. Select the Collection or Page you wish to work in and drag it to Offline folder.

When a collection is available offline, all of the data associated with that collection, as well as the references associated that collection, are copied to the offline database.

2. Click the **Work Offline** button in the upper right corner of the screen. This takes you to the offline mode in which the User's home collection contains only two collections, the User Configuration folder and the Offline Collection. The contents of only these two collections are available offline.



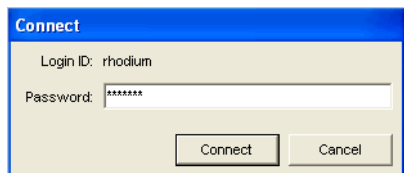
3. Alternatively, click **Work Offline** button in the login dialog box when you are logging into E-Notebook to go directly to the Offline folder:



You can work in Offline just as you would normally work when you are connected.

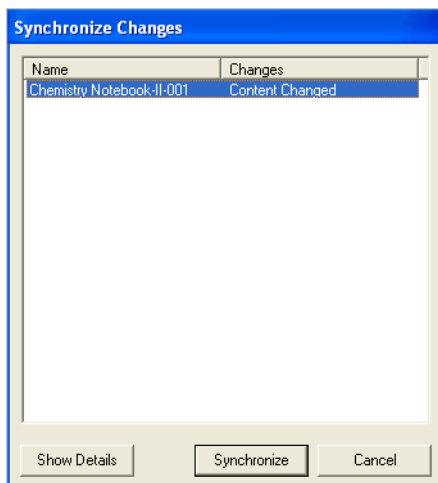
4. You can go online again by clicking **Connect** button in the upper right corner of the screen.

A dialog appears prompting you to log into the E-Notebook.



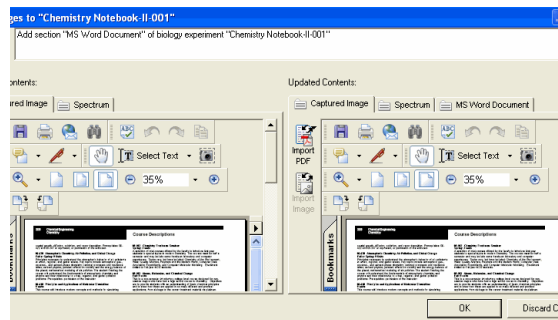
5. Click Connect button

The Synchronization Dialog appears listing each collection that has changed and each new collection added.



6. Click the Synchronize button to update all the changes that are stored offline in the online content.
7. Click the Show Details button.

A dialog appears showing list of changes, original contents and updated contents.



- a. Click OK to go back online and synchronize, or...
- b. Click Discard Changes to remove the new collection or changes made in that collection.
8. Click the Cancel button to cancel the login.

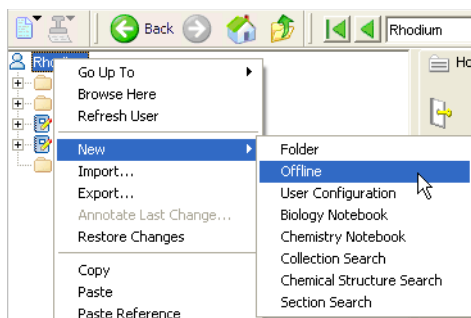
**NOTE:** Depending on your configuration, the Discard Changes button may not always be available to you when synchronizing the contents of a collection that has changed offline.

## Creating an Offline Folder

If you do not yet have an offline folder, you can create one. To create a new, Offline collection:

9. In the Collection Tree, right-click your user collection.

A menu appears.



10. Point to New, then select Offline.

A new Offline collection appears and you are prompted to rename it.

A button, Work Offline appears in the upper right corner of the screen. Clicking this button will enable you to work in offline mode.

**NOTE:** *You should have to create the offline folder only once. You can then continue to use the same folder.*

# Chapter 29: Working with Data in E-Notebook

E-Notebook enables you to work with many, diverse types of data, and then keep related data together in collections such as Experiments and Pages.

**NOTE:** Your system configuration determines what types of data you can add to the sections in E-Notebook. To model your workflow and ensure that E-Notebook accommodates the data types you frequently use, your system configuration may include modified versions of these data types. Also, certain data types may not appear in your configuration, and additional, custom data types may have been added.

## Working with Chemical Structure Data

Chemical structures can be drawn with the use of the ChemDraw Toolbar. The ChemDraw Toolbar allows users to create a chemical structure by connecting frequently used substructures together. For more information about using the ChemDraw Toolbar, please see the ChemDraw User's Guide.

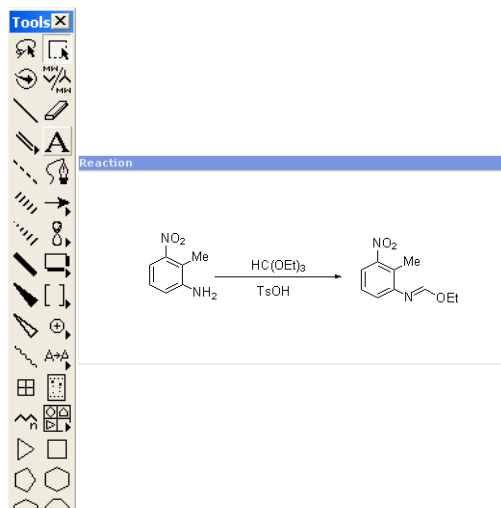
It is also possible to paste standard image files into chemical structure fields, and then use the ChemDraw toolbar for annotation, such as text and arrows. Text in the chemical structure fields is searchable.

### Drawing a Structure

To draw a chemical structure:

1. Click within a chemical structure field.

The ChemDraw toolbar appears.



2. Using the ChemDraw tools, draw a structure or reaction.

**TIP:** You can access a drawing menu by right-clicking in the structure window. This menu allows you to, among other things, copy and paste structures.

### Expanding the Drawing Window

To expand the drawing window:

1. Double-click the frame of the chemical structure field.  
The chemical structure field expands.
2. Using the ChemDraw tools, draw the structure or reaction.
3. When you are finished editing, double-click the frame of the chemical structure field to return it to its original size in the form.



## Working with Images in Chemical Structure Fields

Chemical Structure Fields can also be used to display and annotate standard image files.

You can paste standard image files into chemical structure fields, and then use the ChemDraw toolbar for annotation, such as text and arrows. Text in the chemical structure fields is searchable.

### Inserting an Image a Structure

To insert an image into a chemical structure field:

1. Copy the image onto the clipboard. You may do this by, for example, selecting the **Select All** and **Copy** commands when the image file is open in Microsoft Photo Editor.

2. Right-click within the structure field in E-Notebook.

A menu appears.


3. Point to **Edit**, and click **Paste**.

The image appears in the chemical structure field.

4. Use F7 to zoom in, and F8 to zoom out.

### Annotating the Image

To annotate the image:

1. Click the text tool  in the ChemDraw toolbar.

2. Click in the chemical structure field, and type any text you would like to enter.

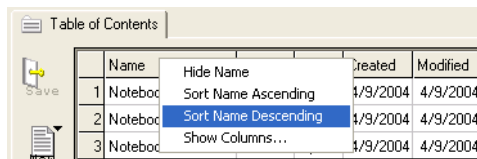
The text appears in the field.

3. Click the arrow tool in the tool bar to select it if you would like to draw arrows to annotate the image.

## Working with Database Tables

Database Tables are used to pull in data from an external database and display it in E-Notebook. The data is for display only and cannot be edited.

The table of contents is an example of a database table.

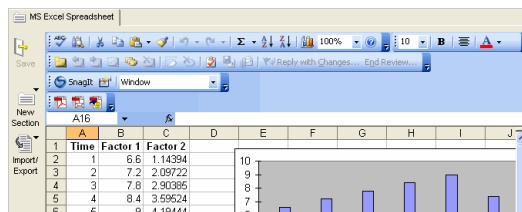


	Name	Hide Name	created	Modified
1	Notebook		4/9/2004	4/9/2004
2	Notebook		4/9/2004	4/9/2004
3	Notebook		4/9/2004	4/9/2004

In some configurations, database tables may be filled in based on a value that you enter elsewhere in a form. For example, the value you enter into a particular property list field may be used to look up and display related data, which will appear within the database tables.

## Working with MS Excel Spreadsheets

You can use MS Excel spreadsheets to manage Excel data in E-Notebook.



To create a new MS Excel Section:

1. In the Collection Tree, click the Page or Experiment to which you would like to add the section.
2. Click the New Section button.



A list of the section types that can be added appears.

3. Select MS Excel Spreadsheet.

A new MS Excel Spreadsheet appears in the right frame.

4. Edit the spreadsheet just as you would normally edit a spreadsheet in MS Excel.

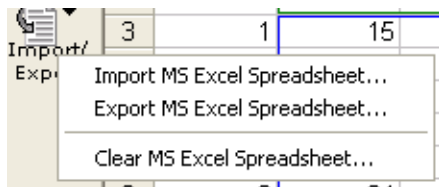
## Importing an MS Excel document

To import an MS Excel document,

1. Click the import tool icon for the MS Excel field.



A menu appears when you click the icon.



2. Select Import MS Excel Spreadsheet.

A dialog box appears, and you are prompted to select the file.

3. Select the file and click the Open button.

The spreadsheet appears in E-Notebook. The section of the spreadsheet that was most recently active is displayed.

To export the file:

1. Click the import tool icon:

A menu appears.

2. Select Export MS Excel Spreadsheet

A dialog appears prompting you to select a location for the exported file.

3. Enter a destination for the file and a file name, and click the Save button.

The file is exported to the location you selected.

To clear an MS Excel file from a section in E-Notebook:

1. Click the import tool icon:

A menu appears.

2. Select Clear MS Excel Spreadsheet

You are prompted to confirm whether you wish to clear the document file.

3. Click OK.

The file is cleared.

## Working with Captured Image Sections

You can use Captured Image Sections to manage both PDF files and standard image files in E-Notebook in PDF format.

To create a new Captured Image Section:

1. In the Collection Tree, click the Page or Experiment to which you would like to add the section.

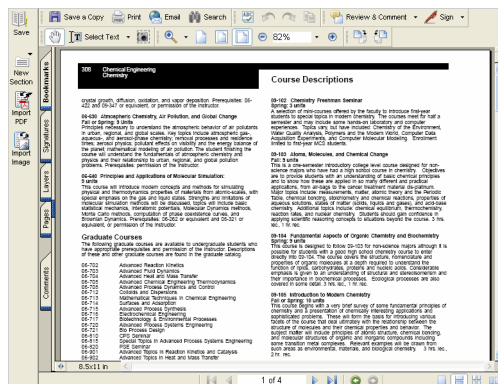
2. Click the New Section button.

A list of the section types that can be added appears.

3. Select Captured Image.

The new section appears within the Page. The image below is an example of a PDF Viewer section.

With this field you may import a PDF document or a standard image file in PDF format.



## Importing and Exporting a PDF File

To import a PDF document:

1. Click the import tool icon for the PDF field.

A menu appears when you click the icon.

2. Select Import PDF.



A dialog box appears, and you are prompted to select the file.

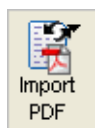
3. Select the file and click the **Open** button.

The PDF document appears in E-Notebook.

**Enterprise**

To export the PDF file:

4. Click the import tool icon.



A menu appears.

5. Select Export PDF.

A dialog appears prompting you to select a location for the exported file.

6. Enter a name and destination for the file, and click the **Save** button.

The file is exported to the location you selected.

To clear a PDF file from a section in E-Notebook:

1. Click the import tool icon:

A menu appears.

2. Select **Clear PDF**.

You are prompted to confirm whether you wish to clear the document file.

3. Click **OK**.

The PDF file is cleared.

## Importing an Image File

You can import any GIF, JPG, JPEG, TIF, TIFF, PNG or BMP image. Once imported, the image

file gets converted to a PDF document and you may edit or add text, as the Adobe Acrobat menu and editing tools are also present.

To import an image,

1. Click the import tool icon for the image field.

A dialog box appears, and you are prompted to select the file.

2. Select the file and click the **Open** button.

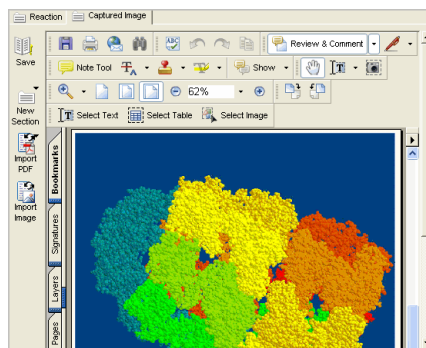
The image in the form of a PDF document appears in E-Notebook.

## Annotating an Image File

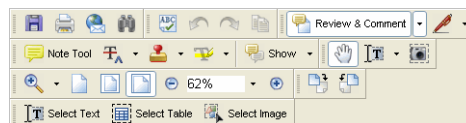
In the Captured Image section the image is converted to PDF upon import and you may edit or add text, as Adobe Acrobat menu with editing tools are also present.

To annotate,

1. Go to the PDF converted imported image file.

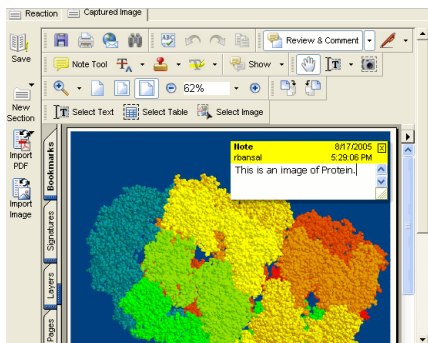


The Adobe menu with Acrobat annotation tools is present above the image in the Captured Image section, as shown below:



2. Select any of the editing tools present in the menu to edit or add some text in the image.

For example, you can click the **Note Tool** button to add your comments. A dialog is displayed within the image field where you can type your comments as shown:



Similarly, you can use the other annotation tools in the image field.

## Working with Image Viewer Sections

You can use MS PowerPoint Sections to manage images in 576.

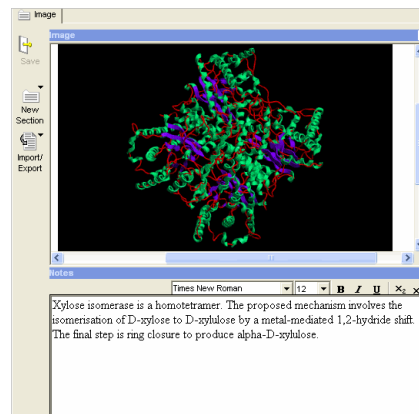
1. To create a new, Image Viewer Section:
2. In the Collection Tree, click the Page or Experiment to which you would like to add the section.
3. Click the New Section button:



A list of the section types that can be added appears.

4. Select Image.

A new Image section appears in the right frame. With this field, you can import images such as GIF, JPG, JPEG, TIF, TIFF, PNG, BMP, etc. and add text for explanation.



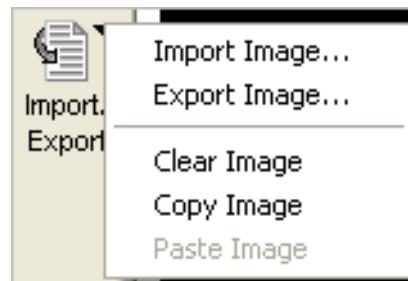
## Importing and Exporting an Image File

To import an Image File:

1. Click the import tool icon for the Image field.



A menu appears.



2. Select Import Image.

A dialog box appears, and you are prompted to select the file.

3. Select the file and click the **Open** button.

The image appears in E-Notebook.

To export the Image file:

1. Click the import tool icon:

A menu appears.

2. Select **Export Image**.

A dialog appears prompting you to select a location for the exported file.

3. Enter a file name and destination for the file, and click the **Save** button.

The file is exported to the location you selected.

To clear an Image file from a section in E-Notebook:

1. Click the import tool icon:

A menu appears.

2. Select **Clear Image**.

You are prompted to confirm whether you wish to clear the document file.

3. Click **OK**.

The image is cleared.

Similarly, you can copy the images from the Image sections and paste them in the other sections in E-Notebook or in other applications.

## Working with MS Word Sections

You can use MS Word Sections to manage information that you would normally record in MS Word. This feature makes it possible for you to keep MS Word information with related, E-Notebook information. You can edit this data just as you would edit an MS Word document, either editing it within E-Notebook, or exporting it to MS Word to take advantage of the full MS Word feature set.

To create a new MS Word Section:

1. Click the collection in the collection tree to which you would like to add the MS Word Section.

---

**NOTE:** *In the preconfigured E-Notebook, you can only add an MS Word Section to a Page).*

---

2. Click the Sections icon on the right side of the screen.

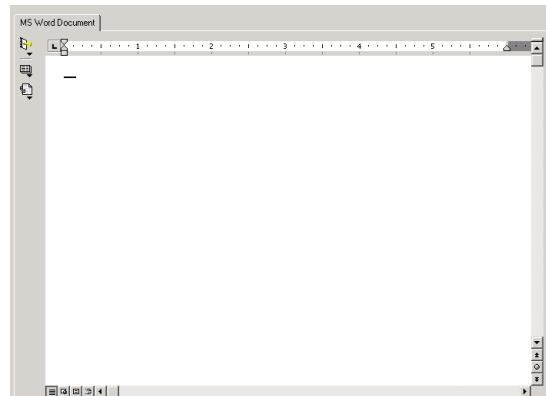
A menu appears.

3. Select **New**.

A list of the Section types that can be added appears.

4. Select **MS Word Document**.

A new MS Word Document appears in the right frame.



**NOTE:** *An MS Word Section is one of the preconfigured Sections of E-Notebook. Depending upon how your system administrator has chosen to configure E-Notebook, this Section may not be available to you, or it may be available in a modified form. For example, an MS Word document may exist as one of multiple fields within a section.*

## Working with MS PowerPoint Slideshow Sections

You can use MS PowerPoint Sections to manage MS PowerPoint slideshows in E-Notebook.

To create a new MS PowerPoint slideshows Section:

1. In the Collection Tree, click the Page or Experiment to which you would like to add the section.

2. Click the **New Section** button:

A list of the section types that can be added appears.

3. Select MS PowerPoint Slideshow.

A new MS PowerPoint slideshow appears in the right frame.

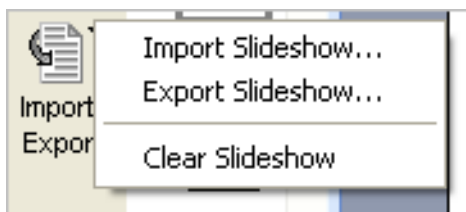
4. Edit the slideshow just as you would normally edit a slideshow in MS PowerPoint.

## Importing and Exporting an MS PowerPoint slideshow

To import an MS PowerPoint document,

1. Click the import tool icon for the MS PowerPoint field.

A menu appears.



2. Select Import Slideshow

A dialog box appears, and you are prompted to select the file.

3. Select the file and click Open.

The slideshow appears in E-Notebook.

The notes associated with a slide will be rendered along with the slide.

To export the MS PowerPoint file:

1. Click the import tool icon.

A menu appears.

2. Select Export Slideshow

A dialog appears prompting you to select a location for the exported file.

3. Enter a file name and a destination for the file, and click Save.

The file is exported to the location you selected.

To clear an MS PowerPoint file from a section in E-Notebook:

1. Click the import tool icon:

A menu appears.

2. Select Clear....

You are prompted to confirm whether you wish to clear the document file.

3. Click OK.

The slideshow is cleared.

## Working with Property Lists

Property Lists are used in forms to record various types of data properties. An example is shown below:

Reaction Conditions	
Pressure	100 atm
Temperature	120 °C

Property lists may contain the following data types:

Data type	Action to take	
Date	Click the date box, and select a date and time.	

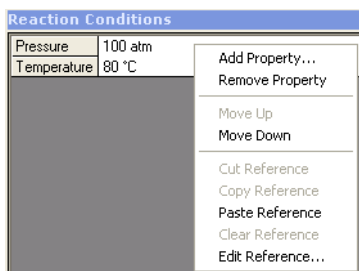
Data type	Action to take	
Text	Enter text.	<input type="text" value="Ether"/>
Number	Enter a number. Certain properties may have default units associated with them, which will appear when you enter the number.	<input type="text" value="200 mL"/>
Enumerated Value	Choose a value from the drop-down list.	<input type="text" value="is"/>

## Adding Properties to Property Lists

To add a property to a property list:

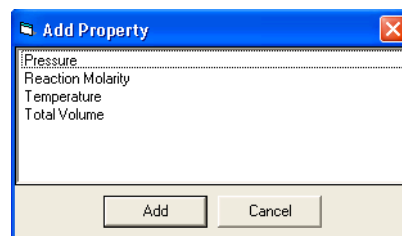
1. Right-click the within the property list in a section.

A menu appears.



2. Select Add Property....

The Add Property dialog box appears, listing the properties you may add.



3. Click the property you wish to add. You may use CTRL+click to select multiple properties, or SHIFT+click to select a range.
4. Click Add.

The property or properties appear in the list.

You system configuration determines which properties may be added to the list, and which properties appear by default.

## Removing Properties from a Property List

To remove a property from a property list:

1. Right-click the property you wish to remove from the Property List.  
A menu appears.
2. Select **Remove Property**.  
A message appears, asking you if you are sure you want to remove the property.
3. Click **Yes**.  
The property is removed from the Property List.

## Setting and Editing Values in a Property List

You can set and edit values for the properties in a property list, such as the list shown below.

To set or edit the value of a property:

1. Click a cell in the property list.  
The values you can enter will depend upon the data type of the specific property.
2. Enter an appropriate value.

<b>Data type</b>	<b>Action to take</b>
Date	Click the date box, and select a date and time.
Text	Enter text.
Number	Enter a number. Certain properties may have default units associated with them, which will appear when you enter the number. See "Working with Numerical Units in Property Lists" on page 558 for more information.

### **Data type**

### **Action to take**

Enumerated Value      Choose a value from the dropdown list.

3. Click elsewhere in the section.  
The value is displayed in the cell.

Depending upon your system configuration, certain properties may have one or several of the following attributes:

- **Read Only** – certain properties may be for display only, and it may not be possible to edit them.
- **Required** – it may not be possible to delete a particular property from a property list. If a property is required, you will be presented with an error message when you attempt to delete it.
- **Not Blank** – it may be necessary to enter a value for a particular property before you can perform a transition on the collection. For example, an experiment collection may be set up such that it is necessary to enter an equipment ID before you can close the experiment. If this is the case, you will be prompted to enter the values when you attempt to perform the transition.
- **Validated** – Values you enter into property list may be checked against an external database, to ensure that they are valid values. In this case, if you enter an invalid value, you will receive an error message, and E-Notebook will not accept the value.
- **Enumerated from a database** – values displayed in a dropdown list for any particular property may be pulled from an external database.

When searching with the Property Query Field, numeric values for properties are interpreted by evaluating the longest possible set of characters



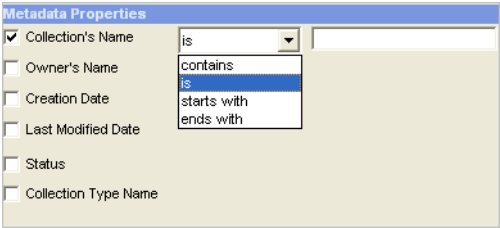
that are converted into a number, starting with the first character. For example, a search for **37.5** will find **37.5g**. A search for **2** will find **2 ATM/50**. Also, conversion is performed to find equivalent values. For example, when searching over a volume property for which mL are the default units, a search for **50 mL** will return both **0.05 L** and **50 mL**.

### Working with Enumerated Lists in Property Lists

Property lists may contain enumerated lists, which may have default values associated with them. Your system configuration determines the enumerated values for any given property.

A property in E-Notebook may be configured so that it will contain a list of enumerated values. You may then select one of the values from a drop-down list that appears in the property cell. This list of values displayed in a dropdown list for any particular property may be some values either manually entered or pulled from an external database by the administrator.

For example, there may be a property of “Collection’s Name” under “Metadata Properties” in search mode. Once you select the checkbox, you may enter the values only from the dropdown list as shown:



Similarly, you can select the values for other properties in the list from the dropdown lists after clicking the checkboxes opposite them.

### Working with Numerical Units in Property Lists

Property lists may contain numerical properties, which may have default units associated with them.

Your system configuration determines the default units for any given property. The following types of measurements may be specified or displayed in the permitted units shown below.

For example, there may be a property of “mass” and its default units may be grams (g). If you enter a numerical value into the property without specifying units, the units will be displayed and stored as grams. You may also enter any of the permitted mass units shown below, such as mg or kg.

Type of Measurement	Permitted Units
density	g/ml µg/ml mg/ml µg/l mg/l g/l kg/l kg/m3
length	m Å nm µm mm cm
mass	g µg mg kg
molality (quantity per mass of solvent or substrate)	mol/kg mol/g mmol/kg mmol/g µmol/kg µmol/g

Type of Measurement	Permitted Units
molar mass	g/mol kg/mol dalton D kD
molarity (quantity per volume of solution)	mol/l μmolar mmolar molar
moles (quantity of substance)	mmol μmol mol
normality (ion equivalents per volume of solution)	N mN μN
pressure	atm Pa kPa torr bar mbar
temperature	°C K °F
time	s ms μs min hr

Type of Measurement	Permitted Units
velocity	m/s km/hr mi/hr
volume	ml μl l m3

When you are in Search mode, the property query field allows you to find all equivalent values entered in various units that share the same unit type. For example, a search for a volume of **500 mL** will return both **500 mL** and **0.5L**. The search will assume the default units for the property if you do not enter units. Using the same example, if **mL** were the default unit for a volume property, and a search were conducted for a property value of **0.5**, no hits would be returned. A search for **0.5 L** would return both **500 mL** and **0.5 L**.

### Creating a Reference within a Property List


Within a property list, you can add a link to another collection/section in E-Notebook or a link to an external URL. This makes it easy to browse back and forth between related data.

#### *Adding a Link from a Property List to an E-Notebook Collection*

To add a link from a property list cell to a collection in E-Notebook,


1. In the Collection Tree, click the collection containing the property list, then select the section containing the property list.

The section containing the property list appears.

2. Click the cell of the property list to which you wish to add the reference.
3. In the Collection Tree, click the collection you would like to reference and, holding the mouse button down, drag the collection into the upper-left corner of the property list cell, until the cursor displays a small arrow, as shown .
4. Release the mouse.

The reference is created, and a small arrow appears in the upper-left corner of the property list cell.



5. You can click the arrow in the property list cell to navigate to the collection you have referenced, and click the Back arrow  to return to the property list.

Alternatively, you may right-click the collection you wish to reference and select **Copy**. Then, right-click within the property list to which you are adding the reference, and select **Paste Reference**.

### *Adding a Link from a Property List to an E-Notebook Section*

To add a link from a property list cell to a section in E-Notebook:

1. In the Collection Tree, click the collection containing section that you would like to reference, then select the section.  
The section to which you would like to make a reference appears.
2. Right-click the Section menu icon, and select **Copy Section**.
3. In the Collection Tree, click the collection containing the property list to which you are adding the reference, then click the section that contains the property list.

4. Right-click within a property list cell and select **Paste Reference** from the menu that appears.

The reference is added to the property list cell, and a small arrow appears in the upper-left corner of the cell. Clicking the arrow will display the section you have referenced.



### *Adding a Link from a Property List to an External URL*

To add a link from a Property List cell to an external URL or an intranet URL,

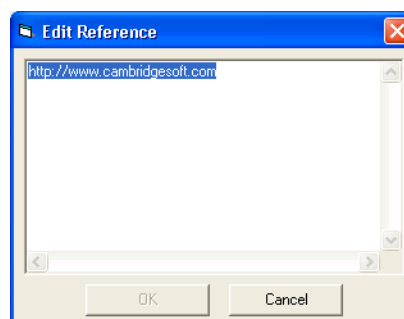
1. Right-click within the property list cell to which you wish to add the reference.

A menu appears.

2. Select **Edit Reference**.

The Edit Reference dialog appears.

3. Enter the URL and click **OK**.



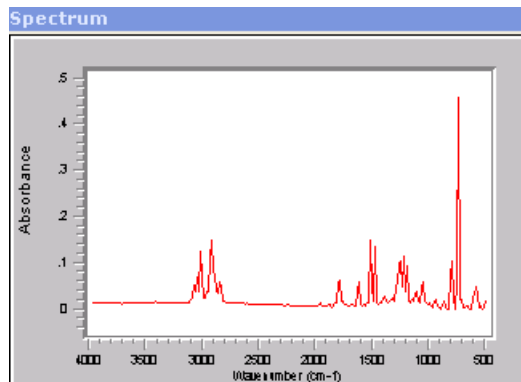
The reference is added to the property list cell, and a small arrow appears in the upper-left corner of the cell. Clicking the arrow will display the URL you have referenced.

## **Working with Spectrum and Spectra Sections**

You can manage your spectra data easily and effectively using Spectrum and Spectra sections. This

topic refers to sections that contain Galactic's GRAMS32 software tools.

**NOTE:** *Spectra may be handled differently in your specific configuration of E-Notebook.*



There are two types of sections for spectra. Each type of section can also contain a set of properties for each spectrum, and notes about each spectrum.

- **Spectrum Section** – this section can contain a single spectrum.
- **Spectra Section** – this section can contain multiple spectra, organized in subsections or sub-tabs.

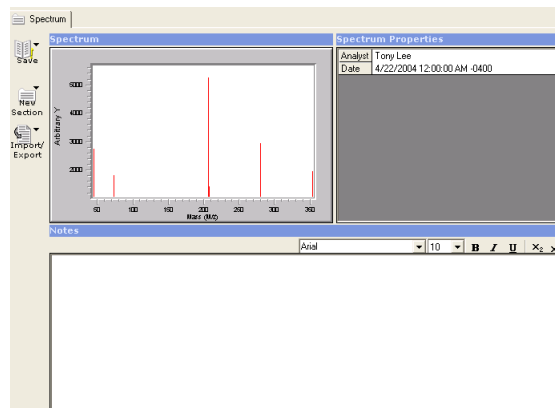
To create a new Spectrum section for a single spectrum:

1. In the Collection tree, click the Page or Experiment to which you wish to add the Spectrum section.
2. Click the New Section button.

A menu appears, listing the types of sections that you may add.

3. Select Spectrum.

The new section appears within the Page. The image below is an example of a spectrum section.



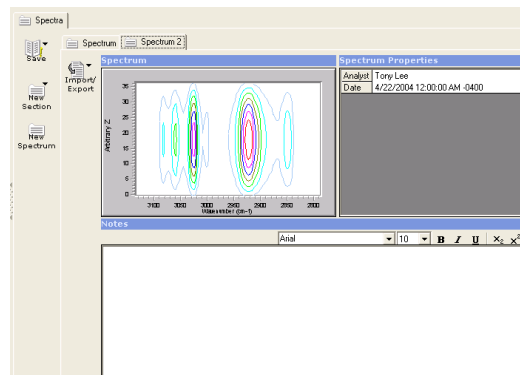
To create a new Spectra section for multiple spectra:

1. In the Collection Tree, click the Page or Experiment to which you wish to add the Spectra section.
2. Click the New Section button.

A list of the section types that can be added appears.

3. Select Spectra.

The new section appears within the Page. You may add as many spectrum subsections as you wish (by clicking the New Spectrum button). The image below shows a spectra section with two spectrum subsections.



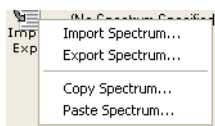
## Adding a Spectrum

To add a spectrum:

1. From within a section with a spectrum field, click the import/export button:

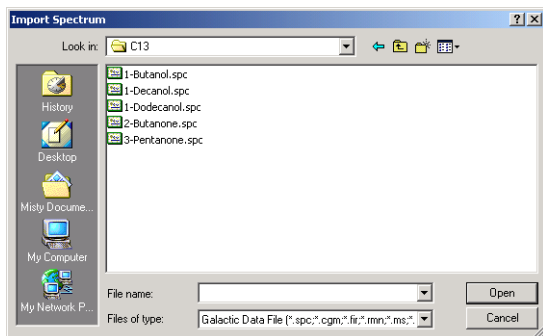


A menu appears.



2. Select Import Spectrum.

The Import Spectrum dialog box appears and you are prompted to select a spectrum image file.




3. Select a spectrum and click Open.

The Import Spectrum dialog box closes and spectrum image appears in the section.

## Replacing a Spectrum

If you would like another spectrum image to take the place of an image within a spectra or spectrum section, you can replace the image. To do this, you may either import a new image, as described above. The new image will replace the old. Or, you may copy an image from another section.

To replace a spectrum image by copying and pasting another image:

1. From within the section containing the image you wish to copy, click the  spectrum button:

A menu is displayed.

2. Select Copy Spectrum.
3. Browse to the section containing the spectrum image you wish to replace.
4. Click the spectrum button.
5. Select Paste Section.

The new spectrum image is replaces the image in the section.

## Zooming in on a Spectrum Peak

To zoom in on a spectrum peak:

1. Click the spectrum image and drag your mouse to draw a box around the area you wish to zoom.
2. Click within the box.  
The zoomed view appears.
3. To zoom out again, simply right-click in the spectrum image.

## Other Fields in a Spectrum Section

- **Spectrum Properties List** – use this list to store Analyst, Type, and Date.
- **Notes** – Record any notes that pertain to a Spectrum in the text field.

Spectrum Properties	
Analyst	Tony Lee
Date	4/22/2004 12:00:00 AM -0400

Notes
<div>Arial 10 B I U x<sub>2</sub> x<sup>2</sup></div> <div></div>

## Working with Styled Text

Styled text boxes can be used to record notes, preparation information, etc. A styled text box is often included in a form with other types of data, making it possible to combine text notes with related data. Certain styled text fields in your configuration may have Autotext associated with them. You can use the Autotext feature to popu-

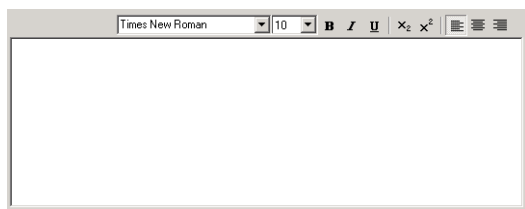
late the styled text field automatically. See “Working with Autotext” on page 540 for more information.

To format the text:

4. From within a section, click within the styled text box.

A cursor appears in the box, and you can begin typing.

Immediately above the box, there may be a toolbar for formatting the text.



You may change the following formatting options:

- Font type
- Font size
- Bolded Text
- Italicized Text
- Superscript
- Subscript
- Left-alignment
- Center-alignment
- Right-alignment

You can also type the text, highlight it, then select the text options you wish to apply to it. Standard editing keys such as Control+C (for copy) and Control+V (for paste) may be used as well.

Note that in your system configuration, the styled text box may not include the formatting toolbar. In addition, a styled text box may be read-only, meaning that you can view but not edit its contents.

A styled text box may also be required: it may be necessary for you to enter text into the box before you can perform a transition on a particular collection. For example, it may be necessary for you to

enter text into a text field before you can close a Page or Experiment.

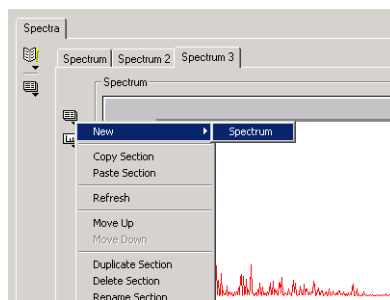
## Working with Subsections

In E-Notebook, certain sections may be set up to contain other sections, known as subsections. The subsections appear as subtabs within a section.

To add a subsection to a section, for example to a Spectra section:

5. Click the New Spectrum button.

A new spectrum in the form of a subsection appears within the Spectra section.



---

**NOTE:** The options for a subsection button under the section will differ according to your configuration.

---

You can manage a subsection just as you would a section. See “Working with Sections” on page 579 for more information.

## Working with Subsections in Button View

You can manage subsections as you would sections. Your system administrator may configure E-Notebook such that the subsections are forced into button view and VCR style buttons are displayed to navigate the sections in a subsection, as shown below.



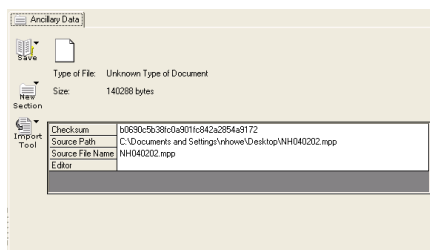
You may then scroll through the subsections using the arrow buttons, or right-click a subsection name

and select Go To in order to browse to a specific subsection.

## Working with Ancillary Data Sections


You can use an Ancillary Data section to associate a file which is not supported by E-Notebook with an E-Notebook page or experiment. When you import the file, the checksum, source path, source file name, and your user name are populated automatically.

Although the file cannot be viewed from within E-Notebook, it can be exported to a selected location, then opened, viewed, or edited from there.



To create a new Ancillary Data section:

1. In the Collection Tree, click the **Page** or **Experiment** to which you would like to add the Ancillary Data Section.

2. Click the **New Section** button  in the right frame:

A list of the section types that can be added appears.

3. Select **Ancillary Data**.

A new Ancillary Data section appears in the right frame.

4. Click the import tool  to import a file:

5. A menu appears.

6. Select **Import...**

A dialog box appears, and you are prompted to select the file.

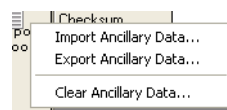
7. Select the file and click **Open**.

The type of file and its size are displayed in E-Notebook.

To edit a stored document file, you must first export it to another location.

1. Click the import tool.

A menu appears.



2. Select **Export...**

A dialog appears prompting you to select a location for the exported file.

3. Enter a destination for the file and a file name, and click **Save**.

4. Open the appropriate application, and open the file you created.

5. Edit the file just as you normally would.

6. Save the file.

7. From the section in E-Notebook, click the import tool again.

A menu appears.

8. Select **Import...**

A dialog appears and you are prompted to select the file to import.

9. Select the file and click **Open**.

The edited document with your changes is stored in E-Notebook.

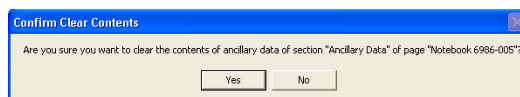
To clear a stored document file from a section in E-Notebook:

1. Click the section tools icon.

A menu appears.

2. Select **Clear Stored Doc**.

3. You are prompted to confirm whether you wish to clear the document file.



Click OK. The file is cleared.

## Working with Table Sections

You can use Table sections to organize the chemical properties of compounds that interest you. You can add properties to a Table, pivot a Table, resize columns and rows, and organize columns and rows. You can also insert links to other E-Notebook sections or collections into a table.

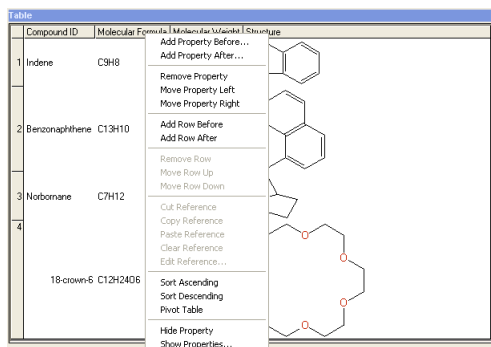
### Adding Columns and Rows to a Table

You can add columns and rows to a table in E-Notebook.

To add a column:

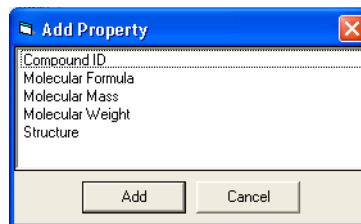
1. Browse to the section that contains the table.
2. Right-click the table at the location where you would like to add the column.

A menu appears.



3. Select **Add Property Before**, to add a property before the current property, or **Add Property After**, to add a property after the current property.

A dialog box appears with a list of the properties you may add.



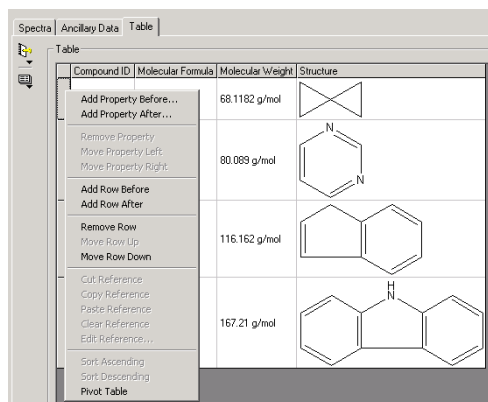
4. Highlight the property you wish to add to the table.
5. Click **Add**.

The property appears as a column in the table, immediately in front of the location you selected.

To add a row:

1. Right-click the table at the location where you would like to add the row.

A menu appears.



2. Select **Add Row Before**, to add a row before the current row, or **Add Row After**, to add a row after the current row.

**NOTE:** If the Table has been pivoted, you would select **Add Property** to add a row, and **Add Column** to add a column. (Pivoting transposes the rows and columns in the table).



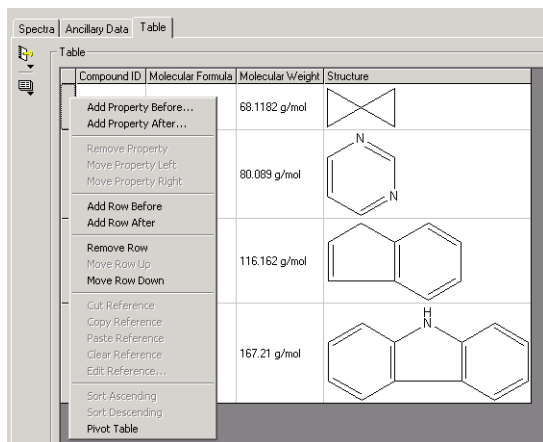
## Removing Columns and Rows from a Table

You can remove columns and rows from a table.

To remove a column:

1. Right-click the column or property you wish to remove from the table.

A menu appears.



2. Select Remove Property.

A dialog box appears, asking you if you are sure you want to delete the property from the table.

3. Click Yes.

The column is removed from the table.

**NOTE:** If the table has been pivoted, right-click a row to remove a property.

To remove a row:

1. Right-click the row you wish to remove from the table.

A menu appears.

2. Select Remove Row.

A dialog box appears, asking you if you are sure you want to delete the row from the Table.

3. Click Yes.

The row is removed from the Table.

## Organizing Columns and Rows in a Table

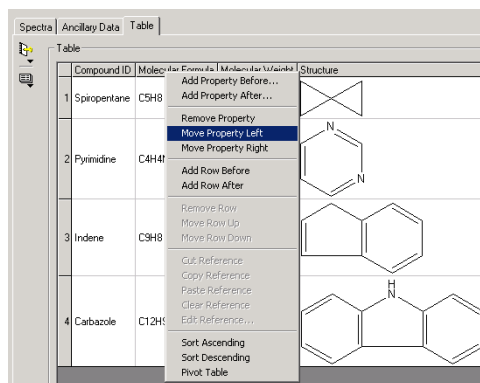
You can easily rearrange rows and columns in a table, organizing them so that the information is displayed more effectively. You can move columns left or right, move rows up or down, and sort data in the table in ascending or descending order.

### Move a column

To move a column left or right:

1. In the table, right-click the column you wish to move.

A menu appears.



2. Select Move Property Left or Move Property Right.

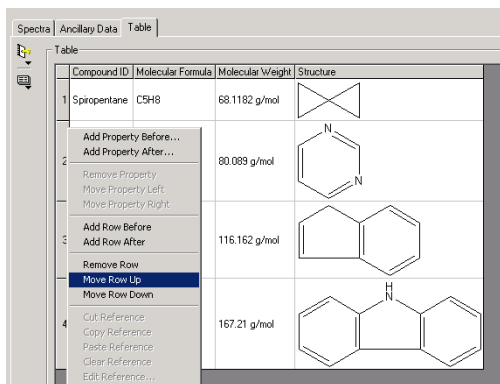
The column is moved either one place to the left or one place to the right, depending upon your selection.

### Move a Row

To move a row up or down:

1. In the table, right-click the row you wish to move.

A menu appears.



## 2. Select Move Row Up or Move Row Down.

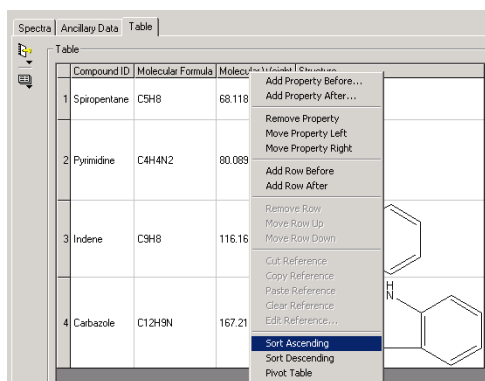
The row is moved either up one place or down one place in the table, depending upon your selection.

## Sort Data by a Property

To sort the table by a particular property:

1. Right-click the row or column corresponding to the property by which you wish to sort the table.

A menu appears.



## 2. Select either Sort Ascending or Sort Descending.

The data in the table is sorted according to the values of the property you selected.

## Resizing Columns and Rows in a Table

You can easily resize rows and columns in a table, so that the information is displayed more effectively.

To resize a row or column:

1. Move the cursor to the border of the row or column in a table.
2. Drag the border in the direction you desire until the column or row is the correct size.

The resized column or row appears in the table.

To autofit a column or row to the size of its contents, move your cursor to the name of the row or column and double-click. The column or row resizes.

## Pivoting a Table

You can transpose the columns and rows of a table to alter the way the information is displayed.

To pivot a table:

1. Right-click the table.
2. Select Pivot Table.

The rows and columns of the table are transposed.

Figure 29.1 Before

Table			
	Compound ID	Molecular Formula	Molecular Weight
1	Indene	C9H8	116.16 g/mol
2	Benzonaphthene	C13H10	166.219 g/mol
3	Norbornane	C7H12	96.1702 g/mol
4	'18-crown-6	C12H24O6	264.31 g/mol

Figure 29.2 After

Table				
	1	2	3	4
Compound ID:	Indene	Benzonaphthene	Norbornane	'18-crown-6
Molecular Formula:	C9H8	C13H10	C7H12	C12H24O6
Molecular Weight:	116.16 g/mol	166.219 g/mol	96.1702 g/mol	264.31 g/mol

## Adding Information to a Table Cell

There are a number of ways to add information to a table cell. Data may be text, numbers, dates, or

structures. Your system configuration determines what type of data it is possible to add to any particular cell.

There are three ways to add information to a cell:

- Choose a value from the dropdown menu that appears in the cell. You will use this option when the cell has a list of possible values associated with it.
- Enter a value using the keyboard.
- Draw a Chemical Structure -- See "Working with Structures and Images in Tables" on page 568 for more information.

In some cases, your system administrator may have configured E-Notebook such that a particular property in the table has one or more qualities, such as 'Read Only'. See "Setting and Editing Values in a Property List" on page 557 for details on qualities.

Certain numerical properties in a table may have units associated with them.

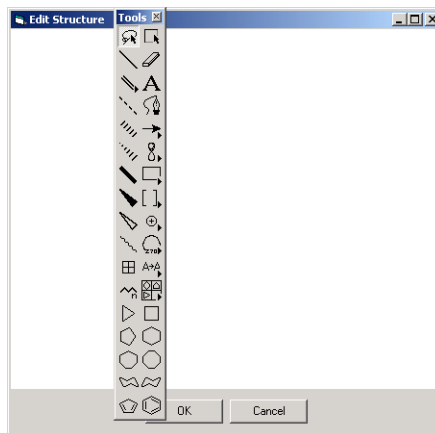
## Working with Structures and Images in Tables

Tables may contain chemical structure fields, which you can use to manage data about the structures of compounds that interest you. You can also add standard image files to the chemical structure fields.

To add a structure or image to a table:

1. Double-click a table cell corresponding to a structure or image.

The **Edit Structure** dialog box appears, and you can use the ChemDraw tools to draw the structure. Or, you may copy a standard image file into the field.



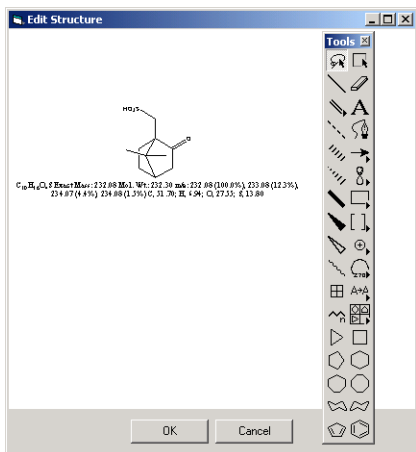
2. Draw the structure or paste in the image and click OK. Copy in an image by right-clicking within the field and selecting Edit, then Paste. The structure or image appears in the table.

### *Editing a Structure or Image*

To edit a structure or image in a table:

1. Double-click the table cell containing the structure or image.

The Edit Structure dialog box appears, and you can use the ChemDraw tools to edit the structure, or you may copy an image file into the field.



2. Edit the structure or change the image and click OK.

The modified structure or image appears in the table.

### Delete a Structure

To delete a structure or image from a table:

1. Double-click the cell of the structure or image you wish to delete.

The Edit Structure dialog box appears.

2. Using the ChemDraw tools, select the entire structure or image and delete it.
3. Click OK.

The dialog box closes and the structure or image is deleted from the table.

### Changing Information in a Table Cell

The data type of a cell determines what type of information you add to a cell. For example, you can only draw a chemical structure in a cell with a data type of structure.

Depending upon the data type, you can edit the information in a cell one of the following ways:

- Choose another value from the menu that appears in the cell — use this option when the cell has enumerated values associated with it.
- Enter a value with the keyboard.
- Edit a Chemical Structure or change an image — See “Working with Structures and Images in Tables” on page 568 for more information.

Certain numerical properties in a table may have units associated with them.

### Working with Numerical Units in Tables

Tables may contain numerical properties, which may have default units associated with them. Your system configuration determines the default units for any given property in a table. See “Working with Numerical Units in Property Lists” on page 558 for the table of default values.

When you are in Search mode, the table query field allows you to find all equivalent values entered in various units that share the same unit type. For example, a search for a volume of **500 mL** will return both **500 mL** and **0.5L**. The search will assume the default units for the property if you do not enter units. Using the same example, if **mL** were the default unit for a volume property, and a search were conducted for a property value of **0.5**, no hits would be returned. A search for **0.5 L** would return both **500 mL** and **0.5 L**.

### Creating a Reference within a Table Cell


Within a table cell, you can add a link to another collection/section in E-Notebook or a link to an external URL. This makes it easy to browse back and forth between related data.

#### Adding a Link from a Table to an E-Notebook Collection

To add a link from a table cell to a collection in E-Notebook,

1. In the Collection Tree, click the collection containing the table, then select the section containing the table.

The section containing the table.

2. Click the table cell to which you wish to add the reference.
3. In the Collection Tree, click the collection you would like to reference and, holding the mouse button down, drag the collection into the upper-left corner of the table cell, until the cursor displays a small arrow, as shown .
4. Release the mouse.
5. The reference is created, and a small arrow appears in the upper-left corner of the table cell.



6. You can click the arrow in the table cell to navigate to the collection you have referenced, and click the Back arrow to return to the table.

Alternatively, you may right-click the collection you wish to reference and select **Copy**. Then, right-click within the table cell to which you are adding the reference, and select **Paste Reference**.

### *Adding a Link from a Table to an E-Notebook Section*

To add a link from a table cell to a section in E-Notebook:

1. In the Collection Tree, click the collection containing section that you would like to reference, then select the section.

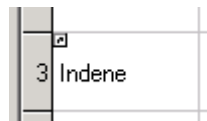
The section to which you would like to make a reference appears.

2. Right-click the Section menu icon, and select **Copy Section**.

3. In the Collection Tree, click the collection containing the table to which you are adding the reference, then click the section that contains the table.

4. Right-click within a table cell and select **Paste Reference** from the menu that appears.

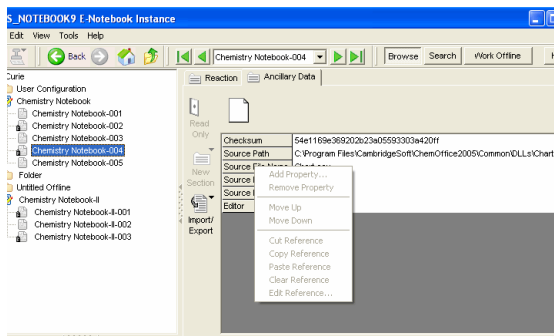
The reference is added to the table cell, and a small arrow appears in the upper-left corner of the cell. Clicking the arrow will display the section you have referenced.



## Blocking of References in Tables

You cannot always add links to the tables in the E-Notebook. You may be blocked from adding a reference to a specific type of collection that is in a particular state. If E-Notebook is configured to block the reference, you will be unable to add the reference to the table. For example, you can not add table references to pages/experiments that are in an archived state.

In the example below, you are prevented from adding or editing a reference to the Ancillary Data in a collection that is in the Closed state.



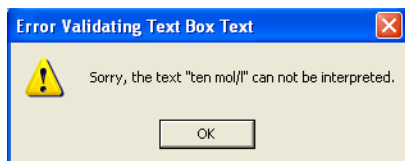
Similarly, you may be prevented from adding references to several different collection types and/or several different states of a collection type depending on your system configuration.

## Validation of Values in Tables

Values you enter into a table may be checked against an external database to ensure that they are valid values. In this case, if you enter an invalid value, you will receive an error message, and E-Notebook will not accept the value.

Actually, your system administrator may have configured E-Notebook such that the valid and invalid values for a particular property in the table are defined and have several qualities. Therefore, when you attempt to enter a value for the property that does not match the defined value, you will be presented with an error message to that effect. For example, you cannot add text into a field in a table which is meant for numerical values or structures or dates.

For example, in a Reaction section, the Reaction Molarity property cell in a Reaction Conditions table can only contain numerical values. If you try to enter text, you will see the following error message:

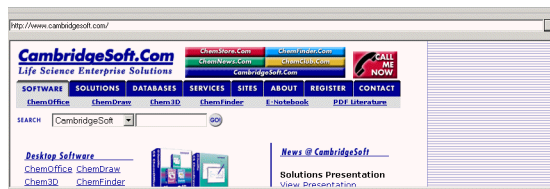


## Working with URL Displays

URL Displays are used to store URLs within E-Notebook and to display their corresponding content. A URL may be for either an internal, intranet site or an external webpage.

To enter a URL and display its corresponding page:

1. Enter the URL address as shown above. In this example, <http://www.cambridgesoft.com> was entered.



2. Click the Go button to the right of the address.

The page corresponding to the URL appears. You may navigate from within the displayed page, if desired.

---

**TIP:** The URL does not change to reflect your navigation. If you wish to change the URL that is saved with the section, you must type in another address.

---

## Rendering in E-Notebook

E-Notebook provides a number of options for rendering the contents of your experiments and other types of collections. You can export to a PDF file or to an MS Word file.

E-Notebook also offers an E-Signatures feature for electronically signing your experiments.

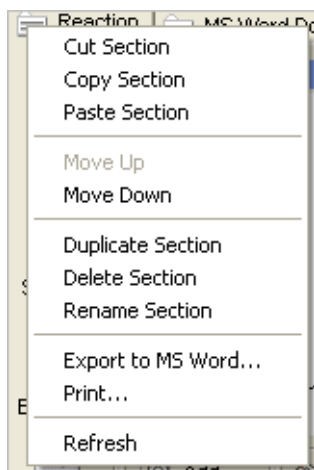
## Exporting

You can export Sections to MS Word, or Collections containing the sections to PDF or MS Word, then manage them as you would PDF or MS Word documents. Rendering to PDF expands the Standard page size so that the page is sized to set the contents of the section.

To export a section:

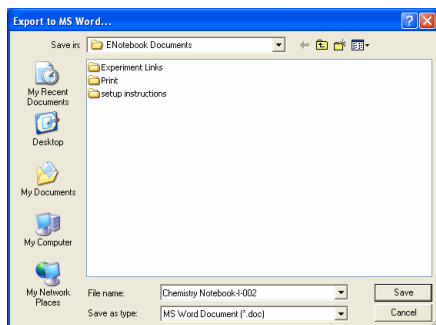
1. In the Collection Tree, click the collection containing the section(s) you wish to export to MS Word.  
The sections appear in the right frame.
2. Click the section menu icon.

The section menu appears.



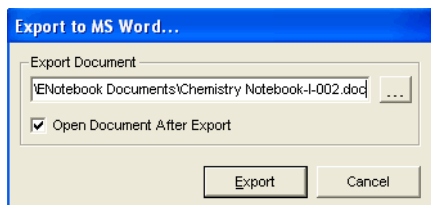
3. Select Export to MS Word.

You are prompted to choose a destination folder and file name.



4. Choose a folder and file name and click Save.

You are prompted to choose an export range.



5. Select an export range. The options are:

- **All Sections** – to export all of the Sections.
- **Sections from X to Y** – to export a range of Sections, where X and Y are values you specify.
- **Current Section** – to export only the current Section.

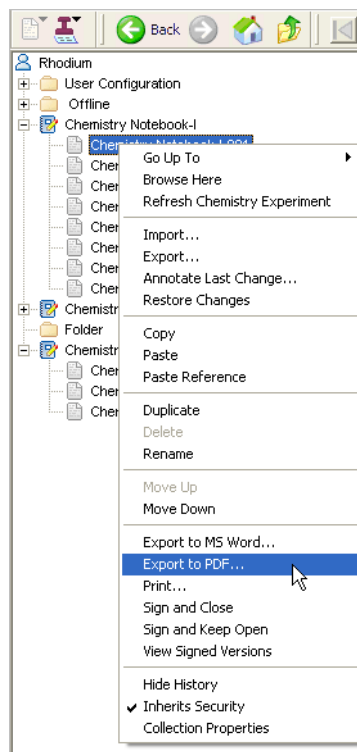
6. Click the checkbox **Open Document After Export** if you would like the PDF document to be opened immediately after the export is complete.

7. Click the Export button.

To export a collection:

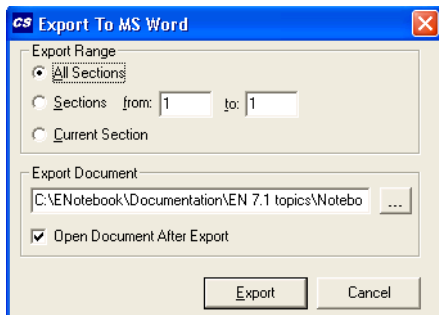
1. In the collection tree, right-click the item you wish to export.

A menu appears.



2. Select Export to MS Word or Export to PDF.

You are prompted to choose a destination folder and file name.



3. Continue with step 5 in exporting a Section, above.

If you chose to open the document after export, the document is opened, and it displays the Sections you selected for export. If you chose not to open the document, the document is saved in the folder you specified.

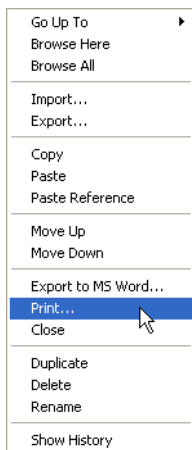
## Printing

You can print Sections or Collections from E-Notebook to maintain your hardcopy archives.

To print a collection:

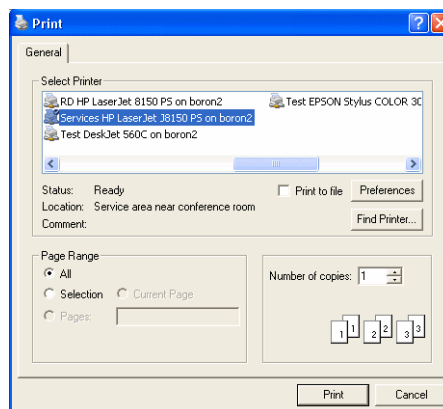
1. From the Collection Tree, right-click the collection.

The collection menu appears.



2. Select Print.

Your printer dialog box appears, and you are prompted to enter the information you normally do when printing, such as page printer and number of copies, etc.



3. Select the printer options
4. Select the Page Range:
  - **All** – prints all of the sections in the collection.
  - **Selection** – prints only the selected section.
  - **Pages** – allows you to specify a range of sections to print. For example “1-5” would print the first, five sections in the collection.
5. Make your selections and click Print.

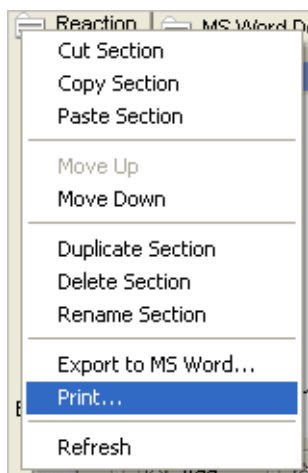
The collection or the portion of it you selected is printed.

To print a section:

1. In the right frame, select the section you wish to print.
2. Click the section menu icon.



The section menu appears.



3. Continue with step 2 of printing collections, above.

Note that your system configuration contains templates that determine exactly how the printed page appears.

If Visual Display of Changes is enabled, the print will include the following:

- The data as is exists in the current version.
- The version history, including the date and the author for each version after the baseline version. (The baseline version is the version that existed when visual display of changes began).
- A list of changes grouped by field.

In some configurations, there is a Final Print transition that automatically creates a complete print-out of the collection.

### **Enterprise E-Signatures**

With E-Signatures, you can electronically sign a PDF version of your completed experiment. This experiment rendition is then routed to co-authors (where applicable) and witnesses. Once all required parties have signed the experiment rendition, it is

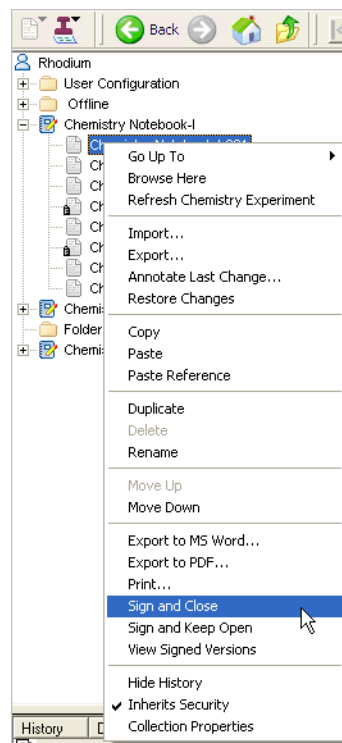
stored in a separate database for protection of your intellectual property.

## Signing and Closing

When you have completed your experiment, you can electronically sign it:

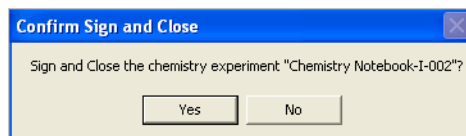
1. In the Collection Tree, right-click the experiment you wish to sign and close.

A menu appears.



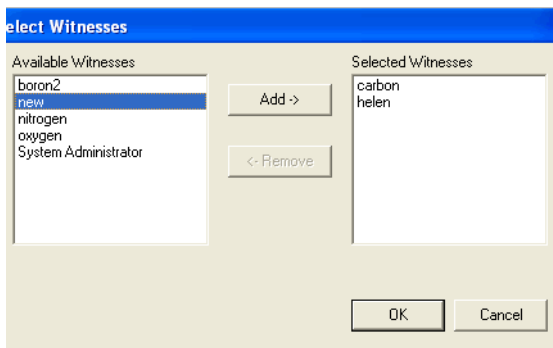
2. Click Sign and Close.

A dialog appears which asks you to confirm Sign and Close.



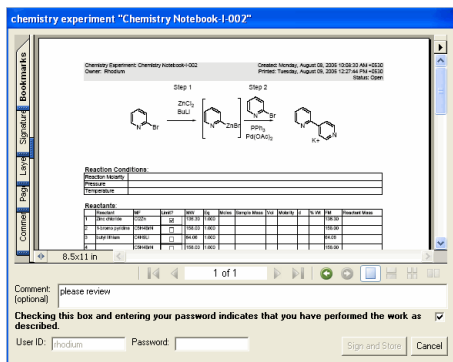
3. Click Yes.

A dialog appears which contains a list of users who can be potential witnesses and you are prompted to select a witness.



4. Select witness(es) and click OK.

The experiment is now rendered to PDF and the experiment in PDF format appears which is now ready to submit.



5. Scroll through the entire rendition, enter your userID and password in the appropriate text boxes, and click Sign and Store.

Upon Sign and Store, the chosen witness is given read permission to the experiment so that s(he) can countersign it.

You can view the record of your submitted documents in the Display Document List Field at the bottom of your Home Page.

Waiting Documents						
Key	Name	Status	Author	Created	Last Action	Comment
35	Chemistry Notebook-003	AWAITING COUNTERSIGN	HELEN	05-Aug-05 5:05:23 PM +0530	10-Aug-05 1:23:13 AM +0530	
Documents submitted by RICHOLM						
Key	Name	Status	Witness	Created	Last Action	Comment
44	Chemistry Notebook-I-007	AWAITING COUNTERSIGN		08-Aug-05 1:03:12 PM +0530	10-Aug-05 2:16:37 AM +0530	review
34	Chemistry Notebook-I-002	REJECTED	CARBON	08-Aug-05 10:08:30 AM +0530	10-Aug-05 1:27:13 AM +0530	Have an
22	Chemistry Notebook-I-006	REJECTED	CARBON	08-Aug-05 11:26:24 AM +0530	09-Aug-05 11:14:50 PM +0530	

The field displays two lists:

- the first is a list of documents sent to you by some other author waiting for your action;
- the second is a list of documents submitted by you that are still going through the signature process.

## Reviewing a Document

You can review the documents you have submitted for electronic signature through your user home page:

1. In the Collection Tree, select your user collection.

Your home page appears in the right frame.

You can view the record of your submitted documents in the Display Document List Field at the bottom of your Home Page.

2. To review a submitted document, right-click the document submitted by you from the second list and click Review...

The PDF rendition is displayed.

3. To make a change in a submitted document:

- Click **Modify Submission** to modify and resubmit your rendition.
- Click **Cancel Submission** to cancel your submission. Once a submission has been cancelled, there is no way to resubmit it.

## Countersigning a Document

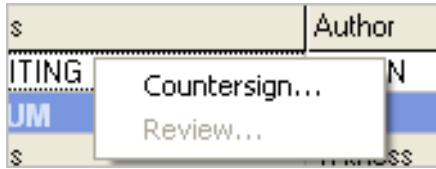
To countersign a document that has been submitted to you:

1. In the Collection Tree, select your user collection.

Your home page appears in the right frame.

You can view the record of documents awaiting your signature in the **Display Document List** Field at the bottom of your Home Page.

2. Right-click the document you wish to sign, and click **Countersign...**



The PDF rendition that was submitted to you is displayed.

3. Click the **Countersign** button to verify your approval.

The document is countersigned and closed, or...

Click **Reject** to deny your approval.

The rejected submission can be reviewed by the primary author and either resubmitted or cancelled. The rejected submission is highlighted in the list to distinguish it from the other entries in the list.

# Chapter 30: Working with Sections and Collections

## Working with Sections

A section is a form for E-Notebook data. Just as you would use pages in a paper notebook for recording various types of data, you can use sections in E-Notebook for recording reactions, spectra, and other types of information. Sections are often associated with Experiments or Page collections. For example, an Experiment may contain sections for reactions, notes, etc.

You can also use templates to set up sections automatically and uniformly. See “Working with Templates” on page 517 for more information.

Your system configuration determines the types of sections that are available in E-Notebook.

## Creating a Section

You can create a new section within a collection.

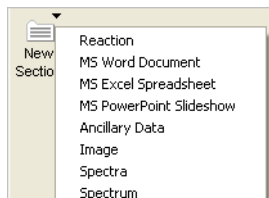
To create a section:

1. In the Collection Tree, click the collection to wish you wish to add the section.

If the collection already contains sections, they appear in the right frame.

2. Click the  icon in the right frame.

A menu appears, listing the types of sections that you may add.



3. Select the type of section you wish to create.

A new section of that type appears.

Your system configuration determines which types of sections can be added to which types of collections. These rules are very flexible, and they make it possible to tailor the E-Notebook application to your workflow.

## Changing a Section

To modify a section within a collection:

1. Go to the section you wish to change.
2. Edit the data in the section. See the other portions of the User Guide for information specific information about how to edit different types of data in E-Notebook.


It is only possible for one E-Notebook user to edit the sections in an individual collection at any given time. If another user is editing a particular collection and you attempt to edit it, you will be presented with a message informing you that the collection is locked for editing by the other user.

In some cases, you will only have Read permission for a collection, meaning that you may view the collection but not edit it.

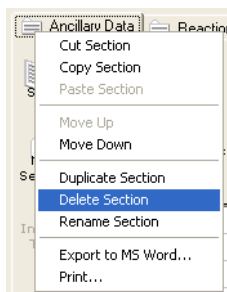
See “Changes and Audit Trail” on page 597 for more information about saving your changes.

## Removing a Section

To remove a section from a collection:

1. Go to the section you wish to remove.
2. With the section displayed, click the  section menu icon.

The section menu appears.



3. Select **Delete Section**.

A message appears, prompting you to confirm that you wish to remove the section.

4. Click **Yes**.


The Section is deleted.

**NOTE:** Your system configuration may prevent you from deleting certain sections. For example, if you are working with a collection that has *Visual Display of Changes* enabled, it will not be possible for you to delete a section. Also, in some cases, it may be possible to delete the sections only if no data has been added to them.

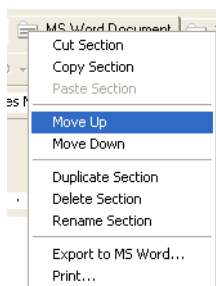
## Moving a Section within a Collection

You can move a section within a collection. This allows you to organize sections in the most effective way.

To move a section:

1. Go to the section you wish to move.
2. Click the  section menu icon.

A menu appears.




3. Select **Move Up** to move the section the left a single position, or select **Move Down** to move the section to the right a single position.

The section is moved in the way you selected.

4. Repeat the process until the section is in the desired location.

## Renaming a Section

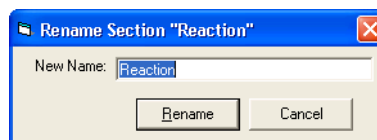
To rename a section:

1. Go to the section you wish to rename.
2. Click the  section menu icon.

The section menu appears.

3. Select **Rename Section**.

A dialog box appears, and you are prompted to type in a new name for the section.



4. Type in a new name and click the **Rename** button.

The dialog box closes and the new name of the section appears.


---

**TIP:** Your system configuration may prevent you from renaming certain sections.

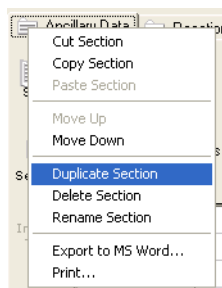
---

## Duplicating a Section within a Collection

To duplicate a section within a collection:

1. Go to the section you wish to duplicate.
2. Click the  section menu icon.

The section menu appears.




3. Select Duplicate Section.

A copy of the section appears.

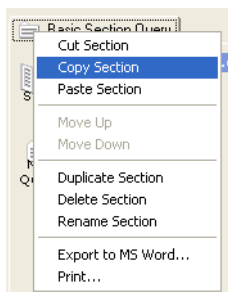
**TIP:** Note that in some cases, your system configuration may prevent you from duplicating a particular section within a collection.


## Duplicating a Section between Collections

To copy a section from one collection to another:

1. Go to the section you wish to duplicate.
2. Click the  section menu icon.

The section menu appears.



3. Select Copy Section.
4. In the Collection Tree, click the collection in which you would like the copied section to appear.
5. Click the  section menu icon.
6. Select Paste Section.

The section menu appears.

A copy of the section appears in the right frame.

**TIP:** Note that in some cases, your system configuration may prevent you from copying the section into a collection.

## Exporting Sections to MS Word

You can export sections to MS Word, then manage them as you would other MS Word documents. See “Exporting” on page 571 for details.

## Printing Sections

You can print sections from E-Notebook. See “Printing” on page 573 for details.

## Working with Collections

All of the information in E-Notebook is organized into collections, which are the items displayed in the Collection Tree. Collections may be notebooks, folders, experiments, pages, etc. E-Notebook allows you to browse through collections and to search them for important information.

It is possible to manage collections in a number of ways, as discussed in the following topics:

- Creating a Collection
- Browsing the Collection Tree (in Ch. 3).
- Organizing Collections
- Working with Templates
- Viewing Collection Properties
- Changing Collection Security Properties
- Performing a Collection Transition
- Exporting a Collection or Section to MS Word
- Printing Collections

Your system configuration determines the types of collections that you can create within E-Notebook and the rules that define their contents. The permission to view, edit, and create collections can be set up on a per-collection basis. These rules are configurable in E-Notebook.

## Behaviors of Collections in E-Notebook

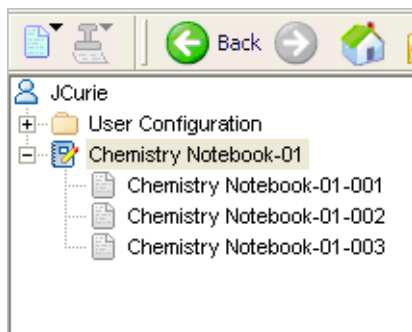
In E-Notebook, there are diverse behaviors associated with Collections—such as the creating, hiding, renaming, duplicating, and moving behaviors. Your system configuration determines the rules to define the traits reflected by a collection. Therefore, depending on your system configuration, there may be some additional behaviors that these collections can show.

### Auto-Numbered Collections

The collections in E-Notebook may be configured to automatically number the collections contained within a specific collection. Your system configuration determines the parameters for auto-numbering the collections.

If the E-Notebook is configured to auto-numbering of the collections, then the newly created collections will be automatically named by appending a serial number to the name of the collection that contains the newly created collection.

For example, if a Notebook collection contains experiments, and the notebook is named Chemistry Notebook-01, the experiments within the collection will be automatically numbered (for example, Chemistry Notebook-01-001) as shown:



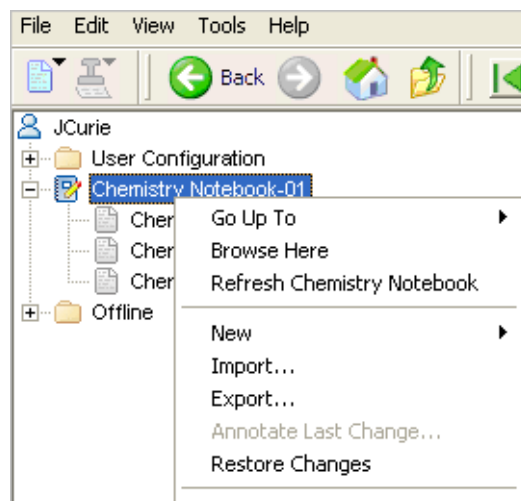
When renaming a collection whose name was generated according to the auto-numbering, the collection will check to ensure that the name fits within the parameters described by your system adminis-

trator for the auto-numbering. For example, when you rename a Notebook, the names of the Pages or Experiments within it will change to match the name of the Notebook. The name must begin with the name of the parent collection followed by a dash and a serial number.

### Collections that Cannot be Deleted

In E-Notebook, you may be prevented from deleting the specific collections. Actually, your system administrator may configure some specific collections so as to prevent you from deleting them once they have been created. Therefore, the **Delete** command in the collection menu of such collections will be grayed out.

For example, if the Notebook collection has been configured to avoid deleting, then clicking on it will show the menu with inactive **Delete** option as shown:



Your system configuration determines which types of collections cannot be deleted. Also, you cannot delete a collection if references to it exist. E-Notebook, by default, is configured so that you can not delete specific collections such as, User Collection, User Configuration Folder, Notebook Collections and Offline Folder.

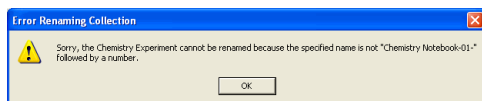
## Collections that Cannot be Deleted if Modified

In E-Notebook, in some cases, it may only be possible to delete collections if they have not been modified since they were created. Once the collection is modified, you are prevented from deleting such collections. In this case, the **Delete** option in the collection menu is inactive when collections of that type are selected.

Your system configuration determines which types of collections cannot be deleted after modification.

## Collections that Cannot be Renamed

In E-Notebook, you may be prevented from renaming specific collections, for example, a collection whose name is generated by the auto-numbering feature. If you attempt to rename an auto-numbered collection, an error message to that effect appears as shown:



Your system configuration determines which types of collections cannot be renamed.

## Copying Collections that Contain References

It is possible to copy collections that contain references in the collection tree in the same way as you would copy normal collections without references. The copied collection contains references to all of the collections that are contained within the collection at the time the copy is made.

In some cases, your system configuration may prevent you from copying collections that contain references to specific types of collections that are in specific states. This pertains only to references that

exist in property lists and tables. It does not pertain to references in the collection tree. For example, an experiment/page collection type may be configured to prevent you from copying pages/experiments that contain references to folders that are in a Closed state.

Your system configuration determines which types of collections you can copy, and into which types of container collections you can copy them.

For more information about copying collections, see “Copying a Collection” on page 586.

## Creating a Collection

Each item displayed in the collection tree represents a collection in E-Notebook. In order to create a new collection, you must first select a container, or parent, collection for it. The new collection will be created within the container collection in the tree. For example, you may select a notebook as the container collection, and you may create new experiments or pages within the notebook.

Another example would be creating notebooks within a user collection. All of the notebooks a user creates could fall within the container collection that bears the user's name.

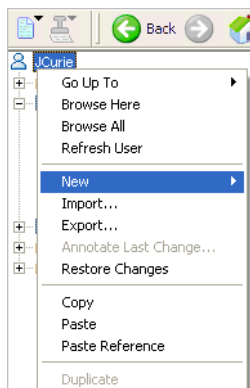
Your system configuration determines where various types of collections may be added to the Collection Tree.

To create a new collection:

1. Be sure you are in browse mode by clicking the **Browse** button.  
The Collection Tree appears.
2. Right-click the collection in the Collection Tree that you would like to be the container for the new collection.



A menu appears.



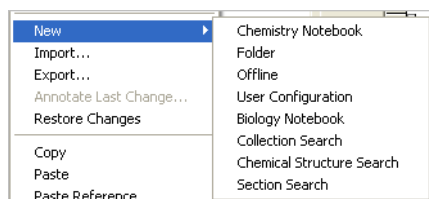
3. Select New.

A menu appears, listing all of the type of collections that may be added to this container collection.

---

**NOTE:** Your system configuration determines which options appear).

---



4. Select the type of collection that you wish to create.

The new collection appears under the container collection in the Collection Tree, and you may be prompted to rename it.

5. Type in a name for the new collection (if prompted).

The name is saved automatically.

## Organizing Collections

You can organize collections in the Collection Tree to make their order meaningful to you and other E-Notebook users. Collections can be moved up and down within a container collection. In some cases, collections can be moved from one con-

tainer collection to another. Your system configuration determines which items can be moved into which types of collections.

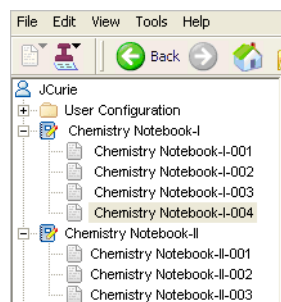
## Moving Collections within a Container Collection

You can organize collections within a container collection by moving them up and down.

To move a collection up or down within its container:

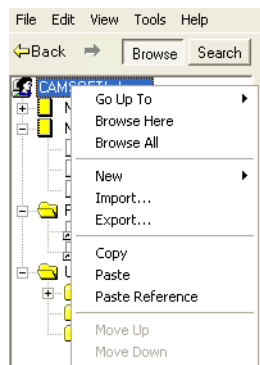
1. Click Browse.

The Collection Tree appears.



2. To expand a collection and view the items within it, either double-click the collection, or click the plus sign next to the collection.
3. Right-click the collection you wish to move up or down within the container collection.

The collection menu appears.



4. Select the appropriate option:

**Move Up** – moves the collection up a single position in the Collection Tree.

**Move Down** – moves the collection down a single position in the Collection Tree.

Alternatively you may press **CONTROL** and the up arrow key to move a collection up, or **CONTROL** and the down arrow key to move a collection down.

## Moving Collections between Container Collections

You can organize collections in the Collection Tree by moving them from one container collection to another. Your system configuration defines the rules that determine which collections can be moved into which types of container collections.

To move an collection between container collections:

1. Click **Browse**.

The Collection Tree appears.

2. In the Collection Tree, click the collection you wish to move.

The collection you wish to move is highlighted.

3. Drag the collection into the new container collection using your mouse.

If your system configuration permits the move, the collection appears in the new location. Depending upon the rules that define your system configuration, a copy or a reference may appear instead.

Also, it may not be possible to move the collection into a particular type of container. If the new container will not accept the collection you are attempting to move, you will be unable to highlight the container when you attempt to drag the collection into it.

## Creating a Reference within the Collection Tree

Within the collection tree, you can create a reference to a collection that exists elsewhere in the

tree. The reference acts as a shortcut to the original collection, and it reflects any changes that are made to the original. Also, if you have editing privileges to the original, any changes made to the reference are reflected in the original.

To create a reference in the collection tree:

1. Click **Browse**.

The Collection Tree appears.

2. Click the collection that you wish to reference.

The collection is highlighted.

3. While holding down the **CTRL** and **SHIFT** keys, drag the item into the Collection where you would like it to be referenced.

A Reference to the item appears in the Collection Tree, within the collection you selected.

The icon contains a small arrow, which indicates that it is a reference.

An alternate method for creating a reference in the collection tree is the following:

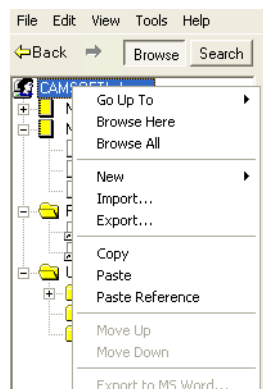
1. Right-click the collection that you wish to reference.

The collection menu appears.

2. Select **Copy**.

3. Right-click the collection into which you wish to add the reference.

The collection menu appears.



4. Select **Paste Reference**.

The reference appears in the Collection Tree, within the container collection you selected.

---

**NOTE:** Your system configuration determines which collections can be referenced within which container collections.

---

It is also possible to create references to collections from property lists and tables.

## Duplicating a Collection within a Container Collection

You can duplicate a collection within its container collection in the Collection Tree. The duplicate you create contains references to all of the collections that are contained within the collection at the time the copy is made.

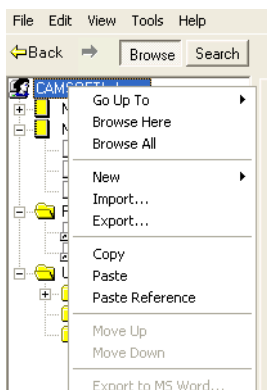
To duplicate an item within the same container collection:

1. Click **Browse**.

The Collection Tree appears.

2. Right-click the collection that you wish to duplicate.

The collection menu appears.



3. Select **Duplicate**.

A copy of the collection appears within the same container collection.

**NOTE:** Your system configuration determines which collections can be duplicated, and where the duplicates can reside in the Collection Tree.

## Copying a Collection

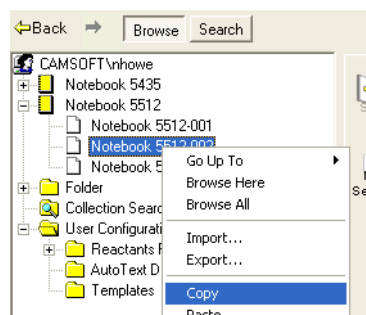
You can copy a collection in the Collection Tree.

To do this:

1. Click the **Browse** button.

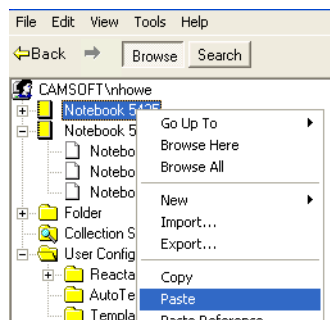
The Collection Tree appears.

2. Right-click the collection you wish to copy and select **Copy** from the menu that appears.



3. Right-click the collection that is to be the container collection for the copy.

4. Select **Paste** from the menu that appears.



A copy of the collection appears in the Collection Tree, within the container you selected.

Alternatively, you may click the collection you are copying to select it. Then, while holding down the

CONTROL key, drag it into a container collection to create a copy.

**NOTE:** *Your system configuration determines which types of collections you can copy, and into which types of container collections you can copy them.*

## Renaming a Collection

You can rename a collection to avoid a duplicate name, or simply to make the name more meaningful to you and other E-Notebook users.

To rename a collection:

1. Click the **Browse** button.

The Collection Tree appears.

2. Right-click the collection you wish to rename in the Collection Tree.

The collection menu appears.

3. Select **Rename**.

You are prompted to enter another name.

4. Enter a name.

The collection is renamed.

Your system configuration determines naming conventions for various types of collections. If you enter a name that does not adhere to the naming conventions, an error message appears and you are prompted to enter another name. In some cases, a name may be assigned to a collection automatically, and it may not be possible to rename the collection at all.

## Deleting a Collection

You can delete a collection from the Collection Tree so that you manage only the information that

is relevant to your current needs. Your system configuration determines which types of collections can be deleted.

To delete a collection from the Collection Tree:

1. Click the **Browse** button.

The Collection Tree appears.

2. Right-click the collection you wish to delete.

The collection menu appears.

3. Select **Delete**.

If your system configuration permits it, the collection is deleted.

You may also delete a collection by clicking it in the tree to select it, then pressing the **DELETE** key.

**NOTE:** *You cannot delete a collection if references to it exist. Also, in some cases, it may only be possible to delete collections if they have not been modified since they were created.*

## Viewing Collection Properties

You can see specific information about a collection by viewing the Collection Properties.

To view properties of a Collection:

1. Click **Browse**.

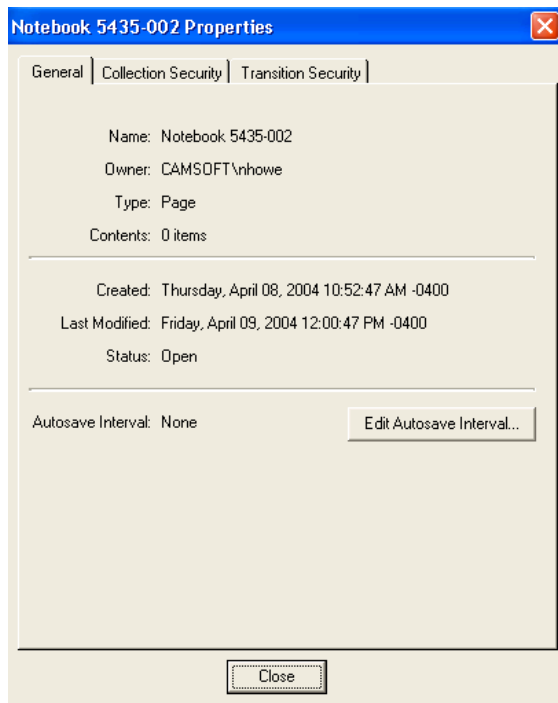
The Collection Tree appears.

2. Right-click the item whose properties you wish to view.

A menu appears.

3. Select **Collection Properties**.

The General tab of the Properties dialog box appears. It contains the following information:



**Name** – the name of the collection.

**Owner** – the user who created the collection.

**Type** – the type of the Collection or Page.

**Contents** – the number of collections contained in the collection.

**Created** – the date on which the collection was created.

**Last Modified** – the date on which the Collection or Page was last changed.

**Status** – the status of the collection in its life-cycle. If no states are defined for the collection, the status is “Created”.

**Autosave Interval** – the time interval after which the collection is saved automatically.

**NOTE:** If you wish to view the Collection Security or Transition Security properties, click the appropriate tab. If the collection is a user collection, the Region tab appears as well.

## Importing and Exporting Collections

E-Notebook provides the ability to export and import collections as XML files. Each XML file contains all of the data and formatting associated with the collection.

### Importing a Collection

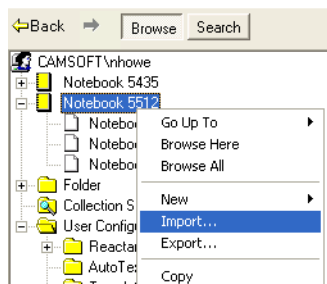
To import a collection,

1. Click the **Browse** button.

The Collection Tree appears.

2. In the Collection Tree, right-click the collection into which you would like the collection to be imported. For example, if you would like to import an Experiment into a Notebook, you would right-click the Notebook.

The collection menu appears.



3. Select **Import**.

A dialog appears and you are prompted to select the XML file you wish to import.

4. Select the file and click **Open**.
5. The collection is imported into E-Notebook.

### Exporting a Collection

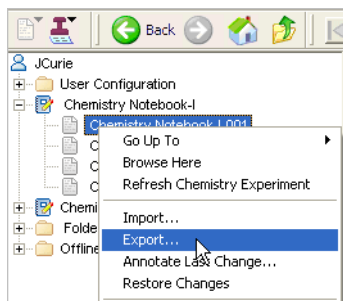
To export a collection,

1. Click the **Browse** button.

The Collection Tree appears.

2. In the Collection Tree, right-click the collection that you wish to export as an XML file.

The collection menu appears.



3. Select **Export**.

A dialog appears, and you are prompted to select a location for the exported file.

4. Select the location for the file and click **Save**.

5. The collection is exported to the XML file.

**TIP:** When a collection is exported, the export file does not include any of the contained collections. Each collection must be exported separately. For example, if you export a Notebook that contains Experiments, only the Notebook is exported; each Experiment must be exported as a separate XML file.

## Changing Collection Security Properties

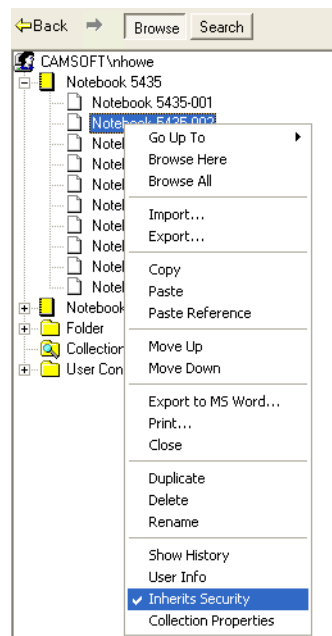
You can change the access that other E-Notebook Users have to a specific Collections. In order to change the security properties of a Collection, you must have Full Control privileges to the collection. Your system administrator determines who has Full Control privileges for each Collection in E-Notebook

The default security for any new Collection is **Inherits Security**, meaning that a Collection has the same security profile as its parent Collection in the Collection tree.

To disable inherited security:

1. Right-click the Collection for which you wish to disable inherited security.

A menu appears.



2. If **Inherits Security** is checked, select it to clear the checkmark.

**Inherits Security** is disabled.

## Collection Security

To change the Security Properties of a Collection or Page:

1. Right-click the Collection or Page whose Security Properties you wish to change.

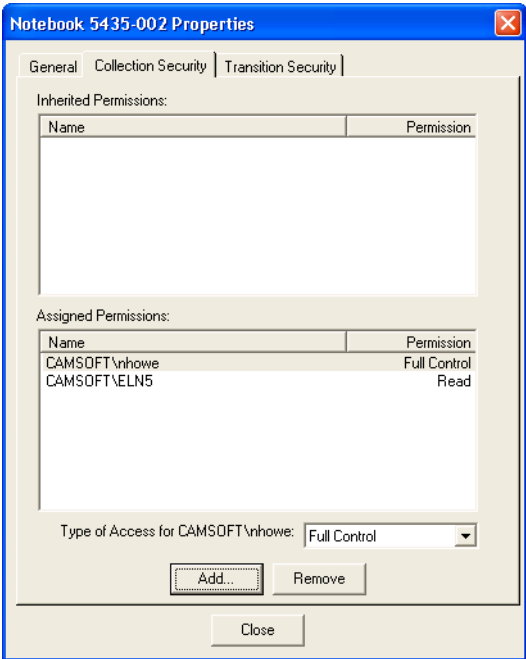
A menu appears.

2. Select **Collection Properties**.

The Collection Properties dialog box appears.

3. Click the Collection Security tab.

The Security tab appears. The Groups and Users who have permission to access this item appear in one of the two lists: Inherited Permissions, Assigned Permissions.



Inherited Permissions are permissions inherited from the parent collection in the collection tree. These permissions can not be changed from this dialog. Only the Assigned Permissions can be changed from this dialog.

4. Take the appropriate action:

Desired Result	Action to take
Add a User or Group to the list	<ol style="list-style-type: none"> <li>Click Add.</li> <li>Select the appropriate user or group from the tree. You may either: <ol style="list-style-type: none"> <li>right-click within a blank portion of the tree and select <b>Browse All</b> to see all of the Users, or</li> <li>click the <b>Search</b> button and perform a search for a User or group of Users).</li> </ol> </li> <li>Click Add...</li> <li>Select the appropriate access from the listbox: <p><b>Read</b> – permits a user to view the Collection, but not edit it.</p> <p><b>Read and Write</b> – permits a user to view and edit the Collection.</p> <p><b>Full Control</b> – permits a user to view the Collection, edit it, and assign or remove security permissions for it.</p> </li> </ol>
Remove a User or Group from the list	<ol style="list-style-type: none"> <li>Highlight the user or group in the list.</li> <li>Click Remove.</li> </ol>

**Desired Result****Action to take**

Change the type of access for a user or group currently in the list

1. Highlight the user or group in the list of Assigned Permissions.
2. Select the appropriate access from the listbox:
  - **Read** – permits a user to view the Collection, but not edit it.
  - **Read and Write** – permits a user to view and edit the Collection.
  - **Full Control** – permits a user to view the Collection, edit it, and assign or remove security permissions for it.

## Transition Security

Transition Security is the security applied to the collection transitions. For example, some users may be allowed to close a collection while others can also reopen the collection.

To change the Transition Security Properties of a Collection or Page:

1. Right-click the Collection or Page whose Security Properties you wish to change.

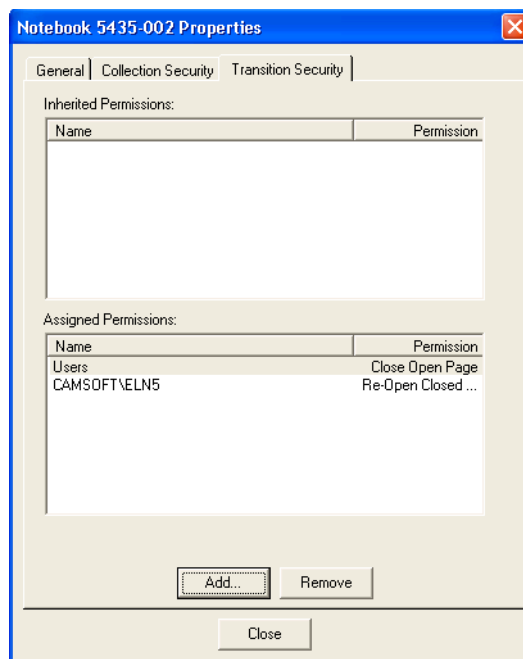
A menu appears.

2. Select Collection Properties.

The Collection Properties dialog box appears.

3. Click the Transition Security tab.

The Security tab appears. The Groups and Users who have permission to apply a transition to this item appear in one of the two lists: Inherited Permissions, Assigned Permissions.



Inherited Permissions are permissions inherited from the parent Collection in the Collection tree. These permissions can not be changed from this dialog. Only the Assigned Permissions can be changed from this dialog.



4. Take the appropriate action:

Desired Result	Action to take
Add a User or Group to the list	<ol style="list-style-type: none"><li>1. Click <b>Add...</b>  The Choose User or Group dialog appears.  2. Select the appropriate user or group from the tree. You may either:  a) right-click within a blank portion of the tree and select <b>Browse All</b> to see all of the Users, or  b) click the <b>Search</b> button and perform a search for a User or group of Users.  3. Click <b>Add</b>.  The Choose Transition Types dialog appears.  4. Select the appropriate transition type(s).  5. Click <b>Add</b>.  The User or Group appears in the Assigned Permissions list, along with the transition type(s) you selected.</li></ol>
Remove a User or Group from the list	<ol style="list-style-type: none"><li>1. Highlight the user or group in the list.</li><li>2. Click <b>Remove</b>.</li></ol>

## Performing a Collection Transition

Collections may be configured to have states associated with them. These states define the life cycle of the collections. For example, a Notebook may have Open and Closed states; the Open state may permit editing, and the Closed state may be a read-only state that does not allow edits. Transitions are the actions you perform to move a collection from one state to another, for example, from Open to Closed.

In order to perform a transition on a collection:

1. Click **Browse**.  
The Collection Tree appears.
2. Right-click the collection in the Collection Tree that is to undergo the transition.  
The collection menu appears.
3. Select the name of the transition from the menu, for example **Close**, **Final Print**, or **Reopen**. (Again, the options will vary based upon your system configuration).
4. You may be prompted to enter additional information — such as an annotation or additional data — before the transition can proceed. If so, enter the information to proceed with the transition.  
The transition occurs and the collection enters the new state. You may always view the state of the collection by right-clicking it in the Collection Tree, then selecting **Collection Properties**.

Transitions may also perform certain functions, such as printing a copy of the collection.

Your system configuration determines which transitions may be performed, and by whom.

## Exporting a Collection or Section to MS Word

You can export Collections and Sections to MS Word, then manage them as you would MS Word

documents. See “Exporting” on page 571 for details.


## Printing Collections

You can print collections from E-Notebook to maintain your hardcopy archives. See “Printing” on page 573 for details.

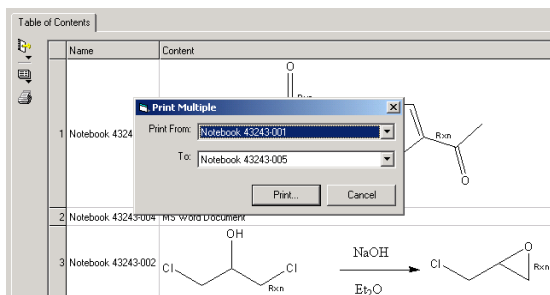
### Printing Multiple Collections at Once

Some configurations provide the ability for you to print multiple contained collections at once.

To do this:

1. Click the container collection in the Collection Tree. For example, this may be a notebook, and you may wish to print several experiments/pages within the notebook.
2. In the right frame, select the section that contains the Print Multiple tool .
3. Click the tool to select it.

The Print Multiple dialog appears, prompting you to select the range of contained collections to print.



4. Select the range by choosing a starting and ending collection from the dropdown lists.
5. Click the Print button.

## Performing a Collection Transition

Collections may be configured to have states associated with them. These states define the life cycle

of the collections. For example, a Notebook may have Open and Closed states. The Open state may permit editing, and the Closed state may be a read-only state that does not allow edits. Transitions are the actions you perform to move a collection from one state to another, for example, from Open to Closed.

In order to perform a transition on a collection:

6. Log into the E-Notebook.  
The Collection Tree appears.
7. Right-click the collection in the Collection Tree that is to undergo the transition.  
The collection menu appears.
8. Select the name of the transition from the menu, for example, **Close**, **Final Print**, or **Reopen**. (Again, the options will vary based upon your system configuration).

You may be prompted to enter additional information such as an annotation, or additional data, before the transition can proceed. If so, enter the information to proceed with the transition.

The transition occurs and the collection enters the new state. You may always view the state of the collection by right-clicking it in the Collection Tree, and then selecting **Collection Properties**.

Transitions may also perform certain functions, such as printing a copy of the collection.

Your system configuration determines which transitions may be performed, and by whom.

## Working with Form Tools

A form tool is used to perform a particular function in an E-Notebook form/field. There are several standard form tools in E-Notebook that may be associated with the section or collection types, for example, the New Section Form Tool associated with Notebook collection type or

Import/Export Form Tool, which is present in new section types you create.

**NOTE:** *Your system configuration determines the collections to which this form tool can be added.*

## The New Section Tool

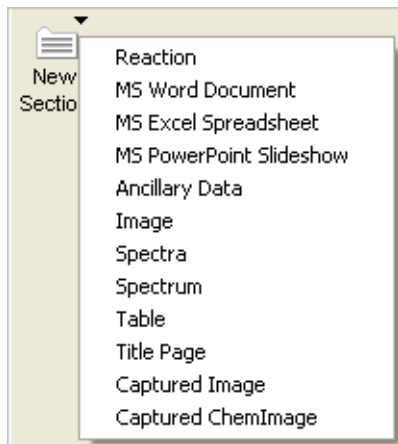
The New Section Tool allows you to add new sections to a collection, for example, to a page or an experiment. When you click the tool you will be presented with a list of the types of sections you may add.

If you would like to create a new section within a Page/Experiment:

9. Click the New Section icon,



A list of the section types that can be added appears.



10. Select the section type.

The new section appears within the Page.

## **Enterprise** The Duplication Collection Tool

The Duplicate Collection Tool allows you to create a copy of the selected collection. For example, if

you click the Duplicate Collection Tool/Icon on a Page/Experiment collection, the Page/Experiment collection will be copied. The duplicate or new copy will appear within the same container collection in the Collection Tree.

To duplicate a collection with Duplication Collection Tool:

11. Select the experiment/page type you wish to duplicate.
12. Click the Duplicate icon/tool,



A new copy of the Page or Experiment collection appears within the same container Notebook.

13. Alternatively, in the Collection Tree, right-click the experiment/page which you would like to duplicate.

A menu appears.

14. Select Duplicate from the menu.

## The New Child Collection Tool

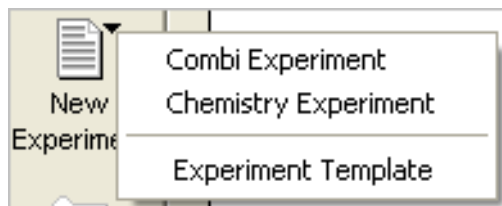
The New Child Collection Tool allows you to add new contained collections to the selected collection. For example, you could click this tool on a notebook in order to create a new page/experiment within the notebook.

The tool may be used to create a new page within a notebook. To do this:

15. Click the New Experiment icon/tool,



A list of the experiment/page types appears.

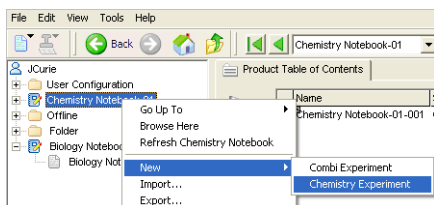


16. Select the experiment/page type.

A new Page or Experiment collection appears within the Notebook. It is numbered automatically.

17. Alternatively, in the Collection Tree, right-click the Notebook collection to which you would like to add the Page or Experiment.

A menu appears from which you can select the page to be added to the Notebook Collection.



## **Enterprise** The New Sibling Collection Tool

The New Sibling Collection Tool allows you to create a new collection of the same type. For exam-

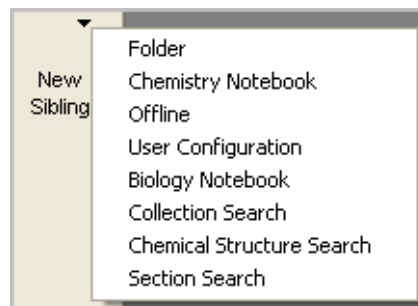
ple, if you click the New Sibling Tool on a notebook, a new notebook will be created. The new sibling will appear within the same container collection in the Collection Tree.

If you would like to create a new sibling of a Notebook:

18. Click the New Sibling icon,



A list of the collection types that can be created appears.



19. Select the collection type.

A new notebook collection appears within the same container collection.

**NOTE:** Your system configuration determines the collections to which this form tool can be added.



# Chapter 31: Changes and Audit Trail

E-Notebook provides auditing and change control features for compliance with 21 CFR Part 11, which is part of Title 21 of the Code of Federal Regulations for the Food and Drug Administration (FDA). 21 CFR Part 11 sets forth guidelines for keeping, maintaining and authenticating electronic records.

For every change made to E-Notebook data, an audit trail records the logged in identity of the user, the date, and the time. This is done automatically when you add, delete, or update data. The audit trail information is stored in the E-Notebook database.

In addition, E-Notebook may be configured so that you can annotate the changes you make to collections by providing reasons for them. See the following topic for more information:


- Annotation of Changes
- Working with the Changes Icon
- Saving Changes to a Collection

You can also view prior versions of collections and, if Visual Display of Changes is enabled, you can view and print the changes that were made to the data in a collection. See the following topics:



- Working with the History Pane
- Visual Display of Changes

## Working with the Changes Icon

The changes icon appears in the right frame of E-Notebook. The appearance of the icon changes to indicate various conditions:

-  When you first select a collection in the collection tree, the changes icon appears as a key in a keyhole. This indicates that you have not made unsaved changes to the collection,


and that you have not opened the collection for editing. The changes icon will always appear in this form if the collection is in a read-only state.

-  If you click within one of the sections in the collection, the key leaves the hole. This indicates that you have locked the collection for editing, and other E-Notebook users may not edit it at this time. The Release state may also indicate that another user of E-Notebook has the collection open and locked for editing.
-  An open book in front of the key indicates that unsaved changes have been made to the collection.

If you are viewing a previous version, the save icon will not appear.


## Saving Changes to a Collection

There are a number of ways in which changes to a collection may be saved. This topic addresses each of these items in detail. They are:


- Clicking the  changes icon.
- Selecting Save Changes or Save and Annotate Changes from the changes menu.
- Browsing to another collection.
- Through autosave, which your system administrator sets up to automatically save the collection after a set period of time has passed.
- Selecting Backup Changes from the changes menu. This option would be used in the event of network failure, to prevent data loss.
- Closing the Internet Explorer browser.

## Clicking the Changes Icon

To save your changes using the changes icon:

1. Click the  changes icon. The open book indicates that there are unsaved changes.
2. If the changes must be annotated, you will be prompted to enter annotation . If no annotation is required, your changes are saved immediately.

The saved version will appear in the History Pane. The changes icon indicates that your

changes have been saved .

## Selecting Annotate Last Change from the Collection Menu

This allows you to provide an optional annotation for the last change you made to a collection. To save your changes using a command in the changes menu:

1. Right-click the collection and select **Annotate Last Change...** from the menu.

A dialog appears and you are prompted to enter an annotation for the change.

2. Select or enter an annotation and click the **Annotate** button.

## Saving Changes by Browsing to Another Collection

To save changes by browsing to another collection:

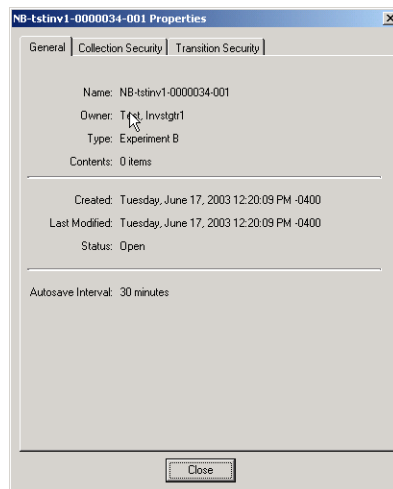
1. Click another collection in the Collection Tree.
2. If your changes must be annotated, you will be prompted to enter annotation . If no annotation is required, your changes are saved immediately.

The version appears in the History Pane.

## Saving Changes through Autosave

Your system configuration may include the autosave feature, which defines the set period of time after which the collection is saved automatically. If autosave occurs and annotation is required, you will be prompted to enter a reason for your changes. To view the autosave interval for a collec-

tion, simply right-click the collection and select **Collection Properties** from the menu.



## Saving Changes through Backup and Restore

In the event of a network failure, you can save your changes locally, and then add them to E-Notebook at a later time using the Restore command.

To Backup and Restore your changes:

1. When the network goes down, you will be prompted to save your changes as an XML file. Select the name and destination for the file and click OK.
2. When the network comes back up, browse to the collection and right-click it.
3. Select **Restore Changes**.

The Restore Changes dialog appears, and you are prompted to select the file containing the changes.

4. Select the file you saved as a backup and click **Open**.

Your changes are restored.

## Annotation of Changes

E-Notebook may be configured so that you can annotate the changes you make to data in collec-

tions. There are two possibilities for providing annotation. They are:

- **Required Annotation** – each time you save the collection, you must provide a reason for the changes you made. You must also provide a reason for the changes if autosave has occurred.
- **Optional Annotation** – you may provide a reason for the changes if you wish, but it is not required.

Whether annotation is required or optional depends upon 1) the type of collection and 2) its state. For example, an Experiment or Page may be configured such that it has three states: Open, Closed, and Reopened.

- **Open** – the Open state may have optional annotation, so that you may provide a reason for a change if you wish.
- **Closed** – the Closed state may be read-only. It may not be possible to edit the collection while it is in this state.
- **Reopened** – the Reopened state may permit changes, but only if they are annotated each time the collection is saved.

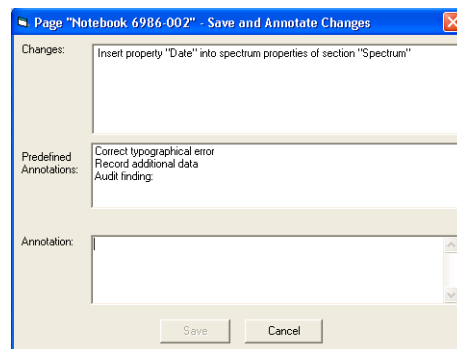
In some configurations, annotation may be required when you perform a collection transition. For example, it may be necessary to provide a reason for moving a collection to the Reopened state.

## Providing Required Annotation

With required annotation, you must provide a reason for your changes each time you save the collection or an autosave occurs. You must provide the reason before making any further changes. The dialog lists the changes you made to the collection since the last time the collection was saved.

1. Click the changes icon .

The annotation dialog appears:



2. Either click one of the Predefined Annotations to select it, or type another annotation into the bottom box.

The Save button is enabled.

3. Click the Save button.


The version of the collection is saved, along with the annotation. The version is listed in the History Pane.

Alternatively, you may save your changes by simply browsing to another collection. If you have unsaved changes, you will be prompted to enter an annotation.

In some configurations, an autosave may occur after a certain time period has elapsed. If autosave occurs and annotation is required, you will be prompted to enter the annotation for your changes.

## Providing Unprompted, Optional Annotation

With Optional Annotation, you may provide a reason for your changes at any time. You initiate providing the reason; it is not mandatory. To provide optional annotation:

1. Click the changes icon .

A menu appears.



2. Select **Save and Annotate Changes**.

---

**NOTE:** *This command will only be available if there are unsaved changes.*

---

3. Click a predefined annotation or type in another annotation.

4. Click **Save**.

The version is saved, along with the annotation. The version is listed in the History Pane.

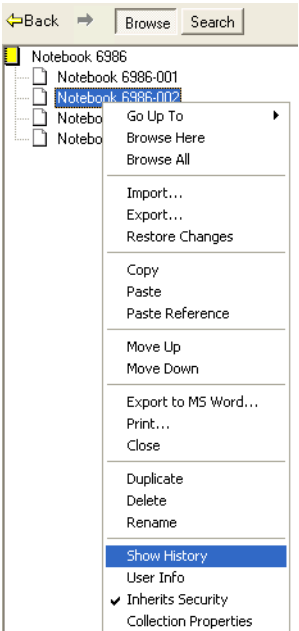
## Working with the History Pane

The History Pane indicates whether prior versions of a collection exist, and enables you to view those versions. A version of the collection is created each time the collection is saved. For each version, the history pane shows the date, time, and the action name - which may be save, autosave, or a transition name.

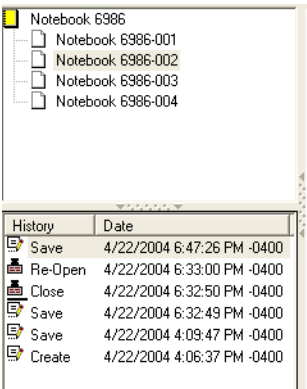
To view the History Pane of a collection:

1. Right-click the collection in the Collection Tree.

The collection menu appears:



2. Select **Show History**. The History Pane appears in a pane below the Collection Tree. It displays all versions and transitions for the collection, in reverse chronological order. A save operation is denoted with a paper and pencil icon. A collection transition is denoted with a rubber stamp icon

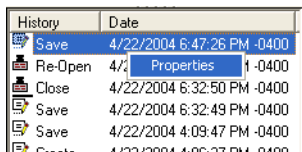


3. To view a particular version, click the version in the History Pane. The version is then displayed in the section frame, to the right.

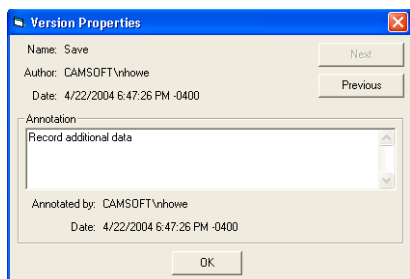
The changes icon is not visible when you are viewing older versions of a collection.

To view the properties of a version of a collection:

1. Right-click the version in the history pane. Select **Properties** from the menu that appears.



- The Version Properties dialog appears.



The dialog displays the following information about the version you selected:

- **Name** – the action that created the version (save, autosave, transition name).
- **Author** – the person who performed the action.
- **Date** – the date and time the version was created.

If there is an annotation associated with the change, the following information appears as well:

- Person who entered the annotation
- Date and time the annotation occurred
- Text of the annotation

2. Click the **Previous** button to view information about the previous version of the collection, or the **Next** button to view information about the next version of this collection.
3. Click **OK** to dismiss the Version Properties dialog.

## Specifying an Annotation through the History Pane

It is only possible to specify an annotation through the History Pane for the most recent version of the collection, and only if the state of the collection does not require that changes be annotated.

To enter an annotation for the most recent version of the collection:

1. Right-click the version in the History Pane.
2. Select **Properties** from the menu that appears.

The properties dialog appears. If the version displayed in the properties dialog is unannotated and requires an annotation, the **Annotate** button is visible.

3. To annotate this version, click the **Annotate** button and the standard annotation dialog box appears.

4.

The standard annotation dialog appears.

5. Enter the reason for the changes, or select a reason from the predefined list of reasons.
6. Click **OK**.

The annotation is saved with the version.

## Visual Display of Changes

Depending upon the type of collection and its state, it is possible to view a Visual Display of Changes that have been made to data in the collection. If Visual Display of Changes is enabled, the changes that have been made to a collection can be viewed in E-Notebook, and a record of the changes made will be shown as footnotes in the printed collection.

In some configurations, Visual Display of Changes will be possible from the very beginning of the collection life cycle, when the collection is first created. In other cases, Visual Display of Changes will begin when a particular collection transition is performed; a common example is the transition from a closed, read-only state to a reopened state in which edits are permitted.

The version of the collection that existed when the Visual Display of Changes began is called the Baseline Version of the collection. It is underlined in the History Pane. In the example below, the Baseline Version in the version that existed when the Close transition was performed. A black line appears under this version.

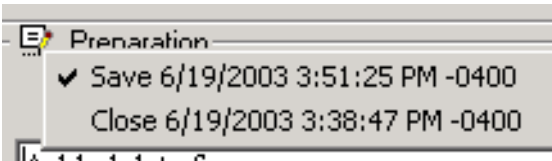
History	Date
Save	6/19/2003 4:56:24 PM -0400
Save	6/19/2003 3:51:25 PM -0400
Re-Open	6/19/2003 3:38:52 PM -0400
Close	6/19/2003 3:38:47 PM -0400
Save	6/19/2003 3:38:40 PM -0400
Save	6/15/2003 10:20:34 PM -0400
Create	6/15/2003 10:19:10 PM -0400

If visual display of changes is enabled, there is a paper and pencil icon next to data in the section that was changed after the baseline version was created.

To view an older version of the data:

1. Click the paper and pencil icon that indicates a change was made.

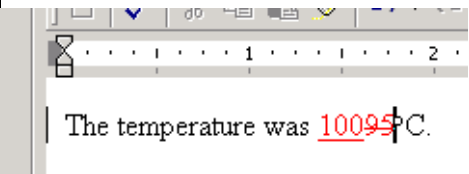

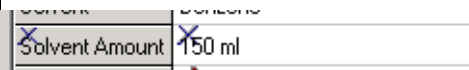
A dropdown menu is displayed. The menu displays a list of dates and times for every saved version of this data since the baseline version. The version currently displayed is denoted with a checkmark.



2. To view a particular version, select the corresponding date from the dropdown list.  
The entire version of the collection as of that date and time is displayed.

Changes are displayed differently for different types of data

Type of Data	Change Display	Example
<ul style="list-style-type: none"><li>• Chemical Structure</li><li>• Database tables</li><li>• MS Excel Spreadsheet</li><li>• Spectrum</li><li>• Stored Document</li><li>• Styled Text</li><li>• URL Displays</li></ul>	The data is displayed as it existed when the version was created.	N/A

Type of Data	Change Display	Example
<ul style="list-style-type: none"> <li>MS Word</li> </ul>	<p>The change tracking features of MS Word are used: new text is underlined and displayed in red. Deleted text is displayed with red, strikethrough text.</p>	
<ul style="list-style-type: none"> <li>Property Lists</li> <li>Tables</li> </ul>	<p>Changed Cells display a pencil icon.</p> <p>New cells display a pencil icon.</p> <p>Deleted cells display an X through them.</p>	<p>Changed or new property:</p>  <p>Deleted property:</p> 

If Visual Display of Changes is enabled, the printed output will include three main portions:

- The data as is exists in the current version.
- The version history, including the date and the author for each version after the baseline version.

- A list of changes grouped by field.

**NOTE:** Even when the visual display of changes is not enabled, the audit trail still captures the history, and the history pane displays a list of the saved versions and transitions for the collection.



# Chapter 32: Searching

Searching allows you to find information in E-Notebook that meets the criteria you specify. E-Notebook makes it possible to search for:

- Chemical structures
- Strings of text
- Values in Property Lists and Tables
- Collections and sections that meet specific criteria, such as creation date or owner's name or state.
- Unannotated versions of collections

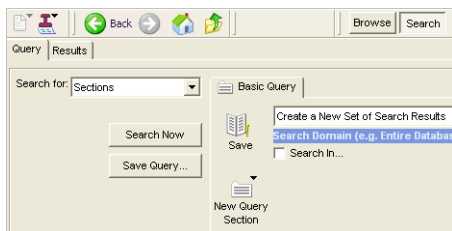
## Conducting a Search

You can search for information in E-Notebook that meets the criteria you specify. You can then save your queries and the results lists.

To conduct a search:

1. Click the **Search** button.

Search mode appears.



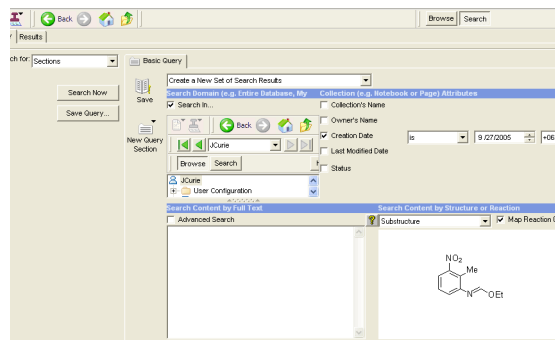
2. From the **Search for** drop-down list, select the type of search you would like to conduct.
3. Click the **New Query Section** icon.

A menu appears.

The options in the menu depend on both the type of search chosen in step 2 and your configuration.

4. Select the type of query you would like to run.

An empty query form is displayed. An example is shown below:



5. Specify the parameters that will determine the search results.

The parameters you can specify are determined by the type of query you are conducting.

6. Do one of the following:

- Click **Search Now** to execute the query.

A results list appears.

- Click **Save Query** to save the query.

The **Collection Tree** appears with a new search, and you are prompted to give the search a name.

## Working with Query Results

When you conduct a Search in E-Notebook, the results are displayed in a list. You can save the results list, and/or view any item on the list.

### Viewing Items in a Results List

To view an item on the results list:

Click the arrow in the upper left corner of the name of the item, as shown below.

	Name	Content
1	CAMSOF\ELN5	Home Page
2	Collection Search	Basic Section

The Collection Tree appears, with the item displayed.

## Saving a Results List

To save the results list:

1. Click **Save Results**.

A dialog appears, prompting you to browse to the location in the Collection Tree where you would like the results to be saved.

2. Click a collection to select it in the tree, and click the **Save** button.

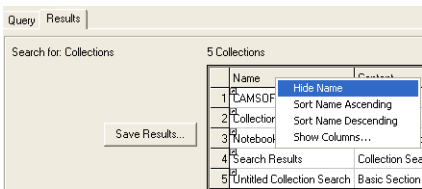
The Collection Tree appears, showing the search results as a new collection. The links are maintained so that you may browse to any of the items.

## Customizing the Display of Search Results

You can customize the display of a hitlist, just as you can customize a table of contents. To do this:

Right-click a column in the hitlist.

A menu appears.



You may hide the selected column or sort the results list. You may also specify which columns are displayed, using the Show command. See “Working with Table of Contents” on page 516 for a more detailed description of these options.

## Saving a Query

When you create a query in E-Notebook, you may save the query in the Collection Tree.

To save a query:

1. Click the **Save Query...** button to the left of the query form.

A dialog appears, and you are prompted to select the location where you wish to save the search.

2. Click a collection to select it as the location, and click the **Save** button.

The Collection Tree appears, and the query appears in the tree. You are prompted to rename the query.

3. Enter a name for the query

---

**TIP:** *The last query you created will appear by default when you enter Search mode again.*

---

## Running a Saved Query

To run a query that is saved in the collection tree:

1. Click the **Browse** button at the top of the screen.

The Collection Tree appears.

2. Select the query in the collection tree by clicking it.

The query form appears in the right frame.

3. Right-click the section menu icon, and select **Copy Section**.

4. Click the **Search** button at the top of the screen.

Search mode appears.

5. From the **Search For** dropdown list, select the type of query that corresponds to the query form you are copying.
6. Right-click the **Section** menu icon, and select **Paste Section**.

The query form appears.

---

**NOTE:** *It may be necessary to delete one of the query forms if you do not want to use multiple query forms. See "Removing a Section" on page 579 for more information.*

---

## Refining a Search

Once you have conducted a search, you can further refine it, performing a search that is:

- An intersection of two searches
- A union of two searches
- The exclusion of one set of search results from another

It is possible to refine both section searches and collection searches.

To do this:

1. From the dropdown list at the top of the query form, choose any of the following options:
  - **Create a New Set of Search Results** – deletes the previous search results and replaces them with the search results generated by the new query.
  - **Refine the Previous Search By Collection** – uses the previous search results to limit the collections in which a search is done. The stored hit list will contain the intersection of the previous search results and the results specified by the new query.
  - **Refine the Previous Search By Section** – uses the previous search results to limit the sections in which the search is done. The stored hit list will contain the intersection of the previous search results and the results specified by the new query. If the current search engine is a collection search engine, then this option is not present.

- **Exclude Collections from the Previous Search** – excludes collections from the stored hit list that are part of the previous search results. The stored hit list is completely replaced.
- **Exclude Sections from the Previous Search** – excludes sections from the stored hit list that are part of the previous search results. The stored hit list is completely replaced. If the current search engine is a collection search engine, then this option is not present.
- **Add to the Previous Search** – adds the results specified in the search query to the previous search results. Duplicate collections and/or sections will not be added.
- **Remove from the Previous Search** – removes the results specified in the search query from the previous search results.

2. Fill in the new search criteria.

3. Click the Search Now button.

The hitlist appears, modified according to the option you chose in step 1.

If you wish, you may refine your search further, by selecting another option from the dropdown list.

## Using the E-Notebook Search Types

E-Notebook offers an extensive array of searching features. You can search for:

- Chemical structures
- Strings of text
- Values in property lists and tables
- Collections and sections that meet specific criteria, such as creation date or owner's name.

You can search for sections that meet the criteria you specify. Similarly, you can search for collections based on specific attributes. The Chemical Structure search will find structures in chemical structure fields and tables in E-Notebook. The



results of the search are grouped by structure for easy analysis and organization. You can also search for collections that require annotation, but for which no annotation was provided when changes were made. You can save queries and the results lists of the searches made to the E-Notebook Collection Tree.

## Searching for Sections

You can search for sections that meet the criteria you specify. You can then refine your search, or save your queries and the results lists.

To conduct a search for sections:

1. While in Search mode, select **Sections** from the Search for drop-down list. If no form appears in the right frame, click the New Query icon.



A menu appears.

2. Select the new query form you wish to create. The options are: **Basic Query** and **Advanced Query**.

An empty query form appears.

3. Enter your search criteria into the form, using the instructions below.

Do one of the following:

- Click **Search Now** to execute the query.  
A results list appears, displaying the sections for which all of the parameters you specified apply.
- Click the **Save Query** button to save the query.

A dialog appears, prompting you to choose a location for saving your search.

Select a location and click the **Save** button.

The Collection Tree appears with a new Section Search, and you are prompted to name the search

When you conduct a search for sections, all of the search criteria you enter into the query form must exist in a section in order for the section to be considered a match. In other words, the search is an “AND” search. If you add an additional search form, you can conduct an “OR” search. The search results will contain the sections that match 1) all of the criteria in the first search form and 2) all of the criteria in the second search form. After running a search you may refine it, adding additional criteria, etc. See “Refining a Search” on page 607.

Searches are not case sensitive. A search for “Benzene” will find both “Benzene” and “benzene”.

Your section search form may include the following search fields:

### *Query Text Field*

The Query Text field may be used to search for the following text:

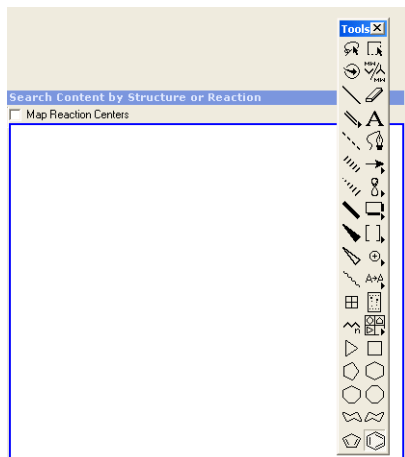
- Text in MS Word fields
- Text in Styled Text fields
- Text in MS Excel spreadsheets
- Text in Chemical Structure fields
- Properties in Property Lists
- Properties in Tables
- Text in several types of stored document files – MS Word, MS Excel, MS PowerPoint

See “Searching for Text with the Query Text Field” on page 614 for a description of the search capabilities.

### *Chemical Structure Field*

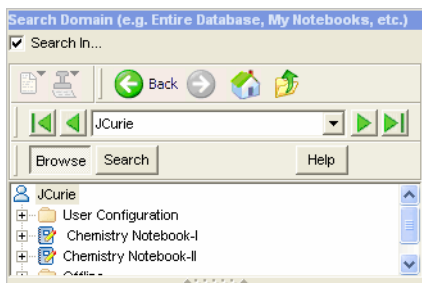
If you wish, draw a structure or reaction using the ChemDraw Toolbar. (Alternatively, you may open a structure file of a supported file type). See “Chemical Structure Search” on page 610 for information about performing a structure search. The section search differs from the chemical struc-

ture search in that the results of a section search are not organized by substructure.



### Search Location Field

The Search Location field allows you specify the branch of the collection tree for your search. To select a search location, simply click the Search In checkbox to select it, and browse to or search for the root collection for your search. The search will cover the root you select and any collections within it.



### Collection (Metadata) Properties

Metadata Properties describe the collections that contain the sections for which you are searching. For Selecting, a checkbox makes visible an area that allows you to enter criteria. See “Searching

with Collection Attributes” on page 612 for more instructions on entering these criteria.

Collection (e.g. Notebook or Page) Attributes			
Collection's Name	contains	4345	
Owner's Name	starts with	Ben	
Creation Date	is	4 / 9 / 2004	-0400
Last Modified Date	is before	5 / 9 / 2004	-0400
Status	is	Open	as of 4 / 9 / 2004 -0400

### Property Query and Table Query Fields

These fields are included in the Advanced Section Query. The Property Query Field is used to search over Property Lists, and the Table Query field is used to search over Tables. See “Searching with the Property Query and Table Query Fields” on page 613.

Property List Query				
Property	Value	Data Type	Field	Section Type
Temperature	100	temperature	Reaction Conditions	Reaction

### Collections Search

The collection search allows you to search for collections, such as notebooks, folder, or experiments. You may conduct a search based for specific content or for metadata, such as owner's name and creation date. You can save your queries and the results lists in the Collection Tree.

To conduct a search for collections:

1. While in Search mode, select Collections from the Search for drop-down list. If no form appears in the right frame, click the New Query icon.

A menu appears.

2. Select Basic Query or Advanced Query.

An empty query form appears.

3. Enter your search criteria, as described below.

Do one of the following:

- Click **Search Now** to execute the query.

A results list appears, listing the Collections that match the criteria you specified.

- Click the **Save Query** button to save the query.

A dialog appears, prompting you to choose a location for saving your search.

- Select a location and click the **Save** button.

The Collection Tree appears with a new Collection Search, and you are prompted to name the search.

Your search for collections may include the following search fields:

**Query Text Field** – see “Query Text Field” on page 608.

**Chemical Structure Field** – see “Chemical Structure Field” on page 608.

**Search Location Field** – see “Search Location Field” on page 609.

**Collection (Metadata) Properties** – see “Collection (Metadata) Properties” on page 609.

**Property Query and Table Query Fields** – see “Property Query and Table Query Fields” on page 609.

## Chemical Structure Search

Substructure searching finds structures that contain the query and any additional attachments at the open positions. Using the ChemDraw toolbar, you can attach different features, such as atom lists and variable bond types, to a query to perform a narrower or broader search.

The Chemical Structure search will find structures in chemical structure fields and tables in E-Notebook. The results of the search are grouped by structure for easy analysis and organization. You can save queries and the results lists to the E-Notebook Collection Tree.

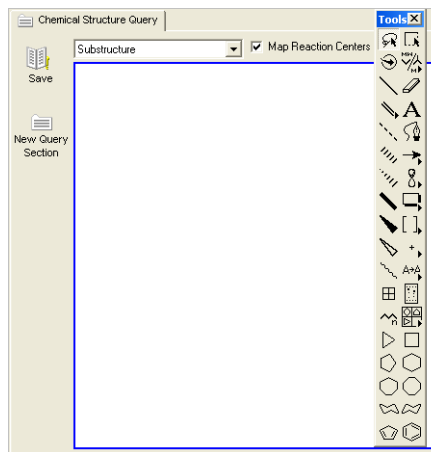
Note that you may also search for chemical structures with the Section Search and Collection Search. These searches allow you to combine the structure search with other search criteria. The results of the Section Search and Collection Search,

however, will present the search results in a list, rather than ordering them by structure.

To conduct a search for structures:

1. While in Search mode, select **Chemical Structure** from the Search for drop-down list.
2. Click the **New Query** icon.

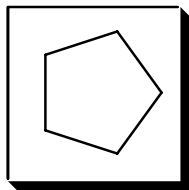
An empty query form appears.



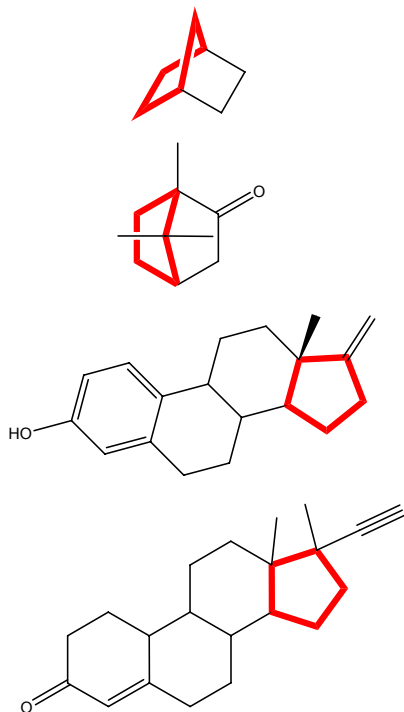
3. Within the chemical structure box, draw the structure or substructure for which you wish to search, or right click within the structure box to import a file. (For more information about the structure drawing capabilities of ChemDraw, please consult the ChemDraw User's Manual.)
4. Do one of the following:
  - Click **Search Now** to execute the query.  
A results list appears.
  - Click the **Save Query** button to save the query.

The Collection tree appears with a new Structure Search, and you are prompted to give the Structure Search a name.

An example of substructure searching of Cyclopentane. The substructure query:

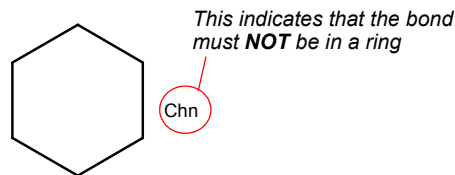


Will hit the following (and other molecules):



In searching substructures, E-Notebook finds the substructure query regardless of its orientation or drawing presentation in the targeted molecules. E-Notebook does its best to follow your instructions even if those instructions are contradictory.

For example, you can create a query such as the following:



That bond is already in a ring, so no hits are returned for this query.

## General Query Properties

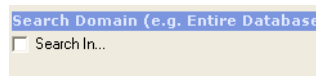
For information on query properties, see Chem-Finder Appendix II-A.

## Searching with the Search Location Field

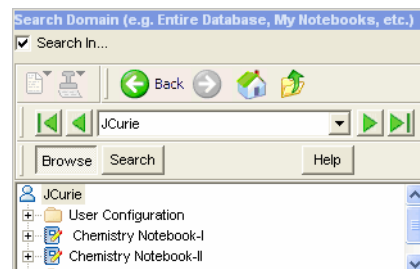
The search location field makes it possible for you to select the specific branch of the collection tree over which your search is conducted.

To use the search location field:

1. While in Search mode with a search form displayed, click the **Search In...** checkbox to activate the field.



The Collection Tree appears.



2. Then, either:


- Browse to the root collection over which you wish to select OR
- Click the **Search** button inside the search location field to search for the root collection.

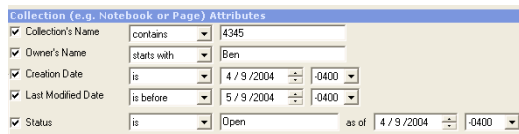
The collection that appears at the top of the Collection Tree in the search location field is the collection over which your search will be run. This root collection, all of its contained collections, and all of the collections referenced within it in the collection hierarchy will be included in the search.

## Searching with Collection Attributes

You may search for collections and sections in E-Notebook based on specific attributes, such as owner's name and creation date.

To conduct a search for collections:

1. While in Search mode, select **Collections** or **Sections** from the **Search** for drop-down list.
2. If no form appears in the right frame, click the  **New Query** icon. A menu appears.
3. Select **Basic Query** or **Advanced Query**.  
An empty query form appears.
4. If you would like to search by collection attributes, select the checkboxes next to any items you would like to include in the query. Selecting a checkbox makes visible an area that allows you to enter criteria.



Specify the collection attributes that will determine the search results. The parameters you may enter are:

Parameter	Options
<b>Collection's Name</b> – the name of the Collection	<ul style="list-style-type: none"> <li>• contains</li> <li>• is</li> <li>• starts with</li> <li>• ends with</li> </ul>
<b>Owner's Name</b> – the name of the User who created the Collection.	<ul style="list-style-type: none"> <li>• contains</li> <li>• is</li> <li>• starts with</li> <li>• ends with</li> </ul>
<b>Type</b> – the Collection type. Examples are Notebook, Folder, Experiment, or Page.	<ul style="list-style-type: none"> <li>• is</li> <li>• is not</li> </ul>
<b>Creation Date</b> – the date the Collection was created.	<ul style="list-style-type: none"> <li>• is</li> <li>• is before</li> <li>• is after</li> </ul>
<b>Last Modified Date</b> – the date the Collection was last modified.	<ul style="list-style-type: none"> <li>• is</li> <li>• is before</li> <li>• is after</li> </ul>

## Parameter Options

**State Name** – the name of the current state of the Collection. Examples are Open and Closed.

- contains
- is
- starts with
- ends with.

Each of these options can be specified as of a certain date. For example, **Closed as of 2/1/2003** would return the Collections that were in the Closed state on 2/1/2003.

## Searching with the Property Query and Table Query Fields

The Property Query Field is used to search over property lists, and the Table Query field is used to search over E-Notebook tables. These search fields are normally found in Advanced Section Query forms.

Property List Query				
Property	Value	Data Type	Field	Section Type
Temperature	100	temperature	Reaction Conditions	Reaction

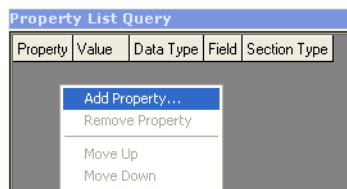
Table Query				
Property	Value	Data Type	Field	Section Type
% Yield	72	number	Products	Reaction

## Adding Properties to the Field

To add properties to a Property Query or Table Query field:

1. Right-click within the field.

A menu appears.



2. Select Add Property.

The Add Property dialog appears, listing the properties that appear in E-Notebook. If properties are already present in the field, the list is filtered to display only those properties that share the same section type:

- **Property Query field** – the properties that appear in E-Notebook property lists are displayed.
- **Table Query field** – the properties that appear in E-Notebook tables are displayed.

3. Select the properties you wish to include in the search. You may use SHIFT+click and CTRL+click to select multiple properties. Make sure that all of the properties exist in the same section type, or your search will return no hits.

4. Click the Add button.

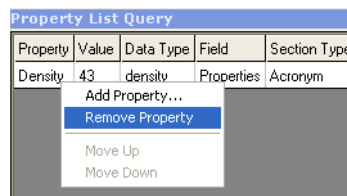
The properties appear in the search form.

## Removing Properties from the Field

To remove a property from the field:

1. Right-click the property you wish to remove.

A menu appears.



2. Select Remove Property.

You are prompted to confirm that you wish to delete the property.

3. Click Yes.

The property is removed from the query field.

## Search Options

You may either search for an exact match, or use one of the following options:

Wildcard searches for text properties:

- If a property has a Data Type of text, you can conduct a “contains” search. Use the percent-age symbol as the wildcard. In the example below, all of the Spectrum sections where the Analyst name ends in **Smith** will be returned.

Property List Query				
Property	Value	Data Type	Field	Section Type
Analyst	%Smith	text	Spectrum Properties	Spectrum

- If a property has a numerical Data Type, you can search for a range, as shown below:

Property List Query				
Property	Value	Data Type	Field	Section Type
Temperature	100-200	temperature	Reaction Conditions	Reaction

Other search options may be used with numerical properties as well:

- **Greater than** – >30 returns all sections in which the property is greater than 30
- **Less than** – <30 returns all sections in which the property is less than 30
- **Greater than or equal to** – >=30 returns all sections in which the property is greater than or equal to 30
- **Less than or equal to** – <=30 returns all sections in which the property is less than or equal to 30.

If you enter units, the search will return all of the equivalent values entered in other units of the same type. For example, a search for a volume of **500 mL** will return both **500 mL** and **0.5L**.

The search will assume the default units for the property if you do not enter units. Using the same

example, if mL were the default unit for a volume property, and a search were conducted for a property value of **0.5**, no hits would be returned. A search for **0.5 L** would return both **500 mL** and **0.5 L**.

## Searching for Text with the Query Text Field

With the Query Text field, you can search for text that is contained in the following E-Notebook fields:

- Styled Text fields
- MS Word fields
- MS Excel fields
- Stored document fields that are MS Word, MS Excel, or MS PowerPoint
- E-Notebook property lists
- E-Notebook tables
- Text in chemical structure fields

If you enter text into the Query Text field and you have specified no other search criteria in the search form, all of the E-Notebook sections you have read access to will be searched.

The searches are not case sensitive.

Search Content by Full Text
benzene

A number of basic and advanced text searching options are available to you:

- Basic Text Searching
- Advanced Text Searching

Numerical properties in Property Lists and Tables can be searched, but only as text; that is, if you perform a search for **500\*** you will find **500 g**, **500 atm**, etc.; you cannot search for a numerical range or perform a greater/less than search with the Query Text field. Also, the advanced text searching options do not apply to Property Lists and Tables.

Depending upon your database settings, text entered into MS Word fields and Styled Text fields may not be available for searching immediately after it is entered. There may be a delay of several hours.

## Basic Text Searching

You can use basic text searching, or querying, to find information in MS Word and Notes portions of E-Notebook. There are a number of special characters used in basic text searching which will help narrow or increase search results.

Normally, the more narrow a search, the more precise the search results become, making it easier to find the information you need. As a search becomes broader, the number of hits in the search results list becomes greater.

Different types of basic text searching are available.

### Exact Phrase Matching

If a search is meant to find only exact matches for the text entered, exact word or phrase matching should be used. This is the most simple search, or query, that returns exactly the information requested.

For example, the following searches really mean:

Searching For ...	Returns ...
thymidine synthesis	the words <b>thymidine synthesis</b> in that order, with no words between them in the text of a document.
cyclohexane	the word <b>cyclohexane</b> in the text of a document.

### Wildcard Searching

If a prefix or a suffix for a word is either unknown or variable, wildcard characters become useful in a free text search to return all words with the same

word root. Wildcard characters can be used in a basic text search when searching for all documents that contain a part of a word. This kind of search typically returns more matches to search criteria than the exact phrase search.

For example, the following searches really mean:

Searching For ...	Returns ...
synth*	any word with <b>synth</b> as the first 5 letters in a document's text. Matches include <b>synthesis</b> , <b>synthetic</b> , and <b>syntheses</b> .
*ethane	any word with <b>ethane</b> as the last 6 letters in a document's text. Matches include <b>ethane</b> , and <b>methane</b> .

## Advanced Text Searching

E-Notebook offers a number of advanced text searching options for searching Notes and MS Word documents in the application. Using specific operators in an advanced search allows you to narrow search parameters dramatically.

### Escape Characters

In order to perform a query over words or symbols that have special meaning to query expressions, such as **&** or **|**, you must escape them. There are two ways to escape characters in a query expression, using curly brackets **{ }** or a backslash **\**.

#### Curly Brackets { }

Use braces to escape a string of characters or symbols. Everything within a set of braces is considered part of the escape sequence. When you use braces to escape a single character, the escaped character becomes a separate token in the query.



The following table has examples of how to use curly brackets to escape an ampersand (&) and a dash (-).

Instead of	Use
AT&T	{AT&T}
high-voltage	{high-voltage}

**Backslash \**

Use the backslash character to escape a single character or symbol. Only the character immediately following the backslash is escaped. The following table has examples of how to use a backslash to escape an ampersand (&) and a dash (-).

Instead of	Use
AT&T	AT\&T
high-voltage	high\-voltage

**ABOUT**

The **ABOUT** operator, when used in an advanced text search, retrieves documents that contain information related to a word or phrase.

Use the **ABOUT** operator by entering the word **ABOUT** in all capital letters followed by the word or phrase on which to search in parentheses.

**ABOUT** searches are always case-sensitive. The text string inside the parentheses is interpreted with respect to case.

For example, the following searches really mean:

Searching For ...	Returns ...
ABOUT (carbon)	any word with words related to carbon in the document's text. Matches include coal and diamond.
ABOUT (carbon by-products from syntheses at 25 degrees Celsius)	any phrases with words related to "carbon by-products from syntheses at 25 degrees Celsius" in the document's text.

The **ABOUT** operator becomes very powerful when coupled with other operators, such as **AND** or **NOT**.

For example, the following searches really mean:

Searching For ...	Returns ...
ABOUT (carbon) AND diamond	any word with words related to carbon as well as the word diamond in the document's text.
ABOUT (carbon) NOT ABOUT (diamond)	any word with words related to carbon but excluding the word diamond in the document's text.

***NOTE:** For advanced Oracle users: The word or phrase specified in an ABOUT query does not have to exactly match the themes stored in the index. Oracle automatically normalizes the word or phrase before performing lookup in the Text index.*

## AND (&)

The **AND** operator used in an advanced text search finds documents that contain more than one word or phrase. The **AND** operator is used to search for documents that contain at least one occurrence of each of the query terms.

The **AND** operator is used by entering the first term, then the word **AND** in all capital letters (or entering the ampersand (& symbol)) followed by another word or phrase on which to perform a search.

For example, the following searches really mean:

Searching For ...	Returns ...
carbon AND diamond	both the words carbon, and diamond, found anywhere within a document's text.
carbon & diamond	both the words carbon, and diamond, found anywhere within a document's text.
carbon & diamond & graphite	all the words carbon, diamond, and graphite, found anywhere within a document's text.
thymidine synthesis AND carbon dioxide	both the phrases thymidine synthesis, and carbon dioxide, found anywhere within a document's text.

## EQUIVariance (=)

The **EQUIVariance** operator used in an advanced text search, or query, will allow the user to find

documents that contain information about words that can be used in place of each other, alone or in a phrase. The **EQUIVariance** operator is used to specify an acceptable substitution for a word in a query.

The **EQUIVariance** operator is used by, entering **EQUIV** in all capital letters (or enter the equals sign (=)), followed by the phrase on which the search is to be performed.

For example, the following searches really mean:

### Searching For ... Returns ...

graphite EQUIV diamond	the words graphite or diamond found anywhere within a document's text.
graphite = diamond	the words graphite or diamond found anywhere within a document's text.
carbon dioxide=monoxide	the words carbon dioxide, carbon monoxide, or both terms found anywhere within a document's text.

**NOTE:** The *EQUIVariance* operator has higher precedence than all other operators except the expansion operators (*fuzzy*, *soundex*, *stem*).

## Fuzzy (?)

The fuzzy operator used in an advanced text search, or query, will find documents that contain words similar to the word used in a search. For example, the fuzzy operator can be used to expand queries to include words that are spelled similarly to the specified term. This type of expansion is helpful for finding more accurate results when there are frequent misspellings, or alternate spellings in the documents in the database.

The fuzzy operator is used by entering a question mark (?), followed by the word on which to perform a search.

For example, the following searches really mean:

**Searching For ... Returns ...**

---

?boron	any word spelled similarly to boron found anywhere within a document's text. Matches include baron.
?read	any words spelled similarly to read found anywhere within a document's text. Matches include read, lead, and real.
?chemist	any words spelled similarly to chemist found anywhere within a document's text. Matches include chemists and chemistry.

**MINUS (-)**

The **MINUS** operator can be used in an advanced text search, or query, to find documents that contain two phrases, with the first phrase taking precedence. The **MINUS** operator is used to search for documents that contain two query terms, but documents containing the second term will ranked lower than documents without the second term. The **MINUS** operator is useful for lowering the score of documents that contain a certain term, without eliminating those documents.

The **MINUS** operator is used by, entering the first term, then **MINUS** in all capital letters (or enter the minus sign or hyphen (-)), followed by another term on which to perform a search.

For example, the following searches really mean:

**Searching For ... Returns ...**

---

carbon - diamond	the words carbon and diamond in them, but documents with diamond are listed last.
carbon MINUS diamond	the words carbon and diamond in them, but documents with diamond are listed last.
diamond -carbon	the words diamond and carbon in them, but documents with carbon are listed last.

**NEAR**

The **NEAR** operator is used in an advanced text search, or query, to find documents that contain two phrases that are close together. The maximum distance between the two terms can be specified.

The **NEAR** operator is used by entering the first term, followed by **NEAR** in all capital letters (or enter a semicolon (;)), followed by the second term on which the search is to be performed.

Use the **NEAR** operator to return documents based on the proximity of two or more query terms.

**NOTE:** *NEAR cannot be used in ABOUT queries.*

For example, the following searches really mean:

Searching For ...	Returns ...
-------------------	-------------

carbon NEAR diamond	the words carbon and diamond in them, but only when they appear less than 100 words apart and in no specific order.
---------------------	---

NEAR uses the following defaults:

- Search terms are found if they are 100 words apart or less, unless specified otherwise. Use whole numbers between 1 and 100.
- Search terms are found in any order, specified otherwise. Use **TRUE** or **FALSE**.

The **NEAR** operator can be used with other operators, such as **AND**, **OR**, and **EQUIVALENCE**.

For example, the following searches really mean:

Searching For ...	Returns ...
-------------------	-------------

NEAR ((carbon, diamond), 20, FALSE)	the words carbon and diamond in them, less than 20 words apart, in no specific order.
-------------------------------------	---

NEAR ((carbon, diamond), 20, TRUE)	the words carbon and diamond in them, less than 20 words apart, in this specific order.
------------------------------------	---

Searching For ...	Returns ...
-------------------	-------------

NEAR ((carbon, diamond), 10) AND benzene	the words carbon, diamond, and benzene in them, but only when carbon and diamond appear less than 10 words apart and in no specific order.
--	--

NEAR ((carbon, diamond = graphite), 10)	the words carbon, diamond, and graphite in them, but only when carbon and diamond or carbon and graphite appear less than 10 words apart and in no specific order.
---	--

## NOT (~)

The **NOT** operator can be used in an advanced text search, or query, to find documents that contain a word or phrase, but only when it appears without a second word or phrase. The **NOT** operator is used by, entering the term to be found, followed by the word **NOT** in all capital letters (or enter a tilde (~)), followed by the term to be excluded in the search.

Use the **NOT** operator to search for documents that contain one query term and not another.

For example, the following searches really mean:

Searching For ...	Returns ...
carbon NOT diamond	the word carbon, but not the word diamond anywhere in the document's text.
carbon ~ diamond	the word carbon, but not the word diamond anywhere in the document's text.
carbon NOT (diamond OR graphite)	the word carbon, but not the word diamond or graphite anywhere in the document's text.

**NOTE:** *The NOT operator does not affect other logical operators.*

## OR (|)

The OR operator can be used in an advanced text search, or query, to find documents that contain information about any words in the query, but not necessarily all words in the query. The OR operator is used by, entering the first term, followed by the word OR in all capital letters (or enter the pipe (|)), followed by another term on which the search is to be performed.

Use the OR operator to search for documents that contain at least one occurrence of any of the query terms.

For example, the following searches really mean:

Searching For ...	Returns ...
carbon OR diamond	the words carbon, diamond, or both anywhere in the document's text.
carbon   diamond	the words carbon, diamond, or both anywhere in the document's text.
carbon OR diamond OR graphite	the words carbon, diamond, graphite, or any combination of the terms anywhere in the document's text
thymidine synthesis OR carbon dioxide	the words thymidine synthesis, carbon dioxide, or both terms anywhere in the document's text.

## Soundex (!)

The soundex operator is used in an advanced text search, or query, to find documents that contain words that sound like the word used in a search. The soundex operator is used by, entering an exclamation point (!), followed by the word on which to perform a search.

Use the soundex (!) operator to expand queries to include words that have similar sounds; that is, words that sound like other words. This function allows comparison of words that are spelled differently, but sound alike in English.

For example, the following searches really mean:

Searching For ...	Returns ...
-------------------	-------------

!carben	any words that sound like the word carben in a document's text. Matches include carbon and carboxylic.
---------	--

?read	any words that sound like the word read in a document's text. Matches include read and lead.
-------	--

### Stem (\$)

The stem operator is used in an advanced text search, or query, to find documents that contain words similar to the word used in a search. When the stem operator is used, enter a dollar sign (\$), followed by the word on which to perform a search.

Use the stem operator to search for terms that have the same linguistic root as the query term. Stem expands a query to include all terms with the same stem or root word as the search term.

For example, the following searches really mean:

Searching For ...	Returns ...
-------------------	-------------

\$commit	any words with the root commit found in the document's text. Matches include commits, committing, committee, and committed.
----------	---

\$chemist	any words with the root chemist found in the document's text. Matches include chemist, chemistry, and chemists in them.
-----------	---



# Chapter 33: Enterprise Introducing CombiChem for E-Notebook

With the introduction of CombiChem™, it is now possible for you to set up and manage combinatorial chemistry libraries in E-Notebook. You can set up a generic reaction, add reactants, and automatically enumerate the products.

Features include:

- **Data import/export** – import reactants from an SD file or other chemical database, and CombiChem will scan the database for reactants that match generic components. CombiChem also allows you to export enumerated products to an SD file.
- **Select reaction sites** – when more than one reaction site is possible, you can select which reaction sites you would like to include in the product enumeration process.
- **Automatic stoichiometry calculations** – When you enumerate products in CombiChem, you can automatically populate the stoichiometry grid for each individual reaction.
- **Flexible plate handling** – you can determine the plate size, location of blanks, and grouping order of reactants in the plate.
- **Navigator and structure palettes** – you can browse through CombiChem easily. Clicking a location in the CombiChem Navigator displays the reaction components in that location. With the structure palette, you can scroll through the corresponding structures of reactants and products.

- **Configurable data sections** – as with all E-Notebook sections, the configuration of CombiChem sections may be modified easily so that your data is presented in the most effective manner.

See the following topics:

- Setting up the Generic Reaction
- Managing CombiChem Reactants
- Enumerating and Managing CombiChem Products
- Using the CombiChem Navigator and Structure Window
- Managing Plate Layout and Structure Palette Settings

CombiChem is sold as a separate, E-Notebook add-in feature, and may not be available in your configuration of E-Notebook.

## Setting up the Generic Reaction

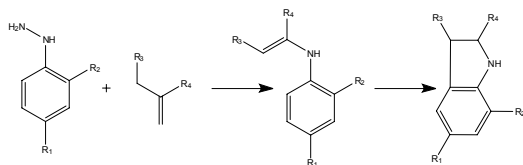
In a CombiChem Library, you may either add a new generic reaction, or prepare a reaction from an existing experiment.

## Adding a Generic Reaction

CombiChem is a reaction-based combinatorial product. You first enter a reaction template with R-groups at the variable sites in your starting materials, and then search for reactants based on these structures. CombiChem puts your final product structures together and creates a virtual library. All sites of variability require unique R-group designations.

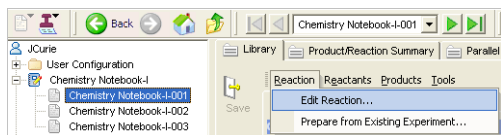


An example of a reaction that CombiChem supports is shown below:



To add a generic reaction to a CombiChem Library:

1. From a CombiChem Library section, click **Reaction** in the CombiChem menu.

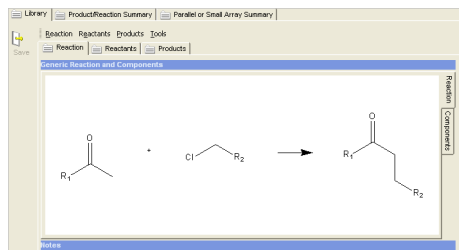


2. Select **Edit Reaction**.

The Edit Structure window, a ChemDraw window, appears.

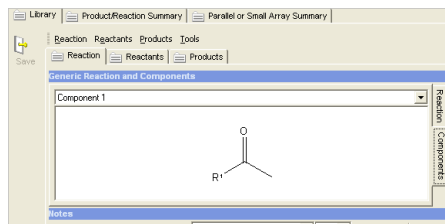
3. Either draw the reaction in the window, or right-click within the window and select **File**, then **Open**, to open an existing reaction file.
4. Click **OK** when you have finished editing the reaction.

The Edit Structure window closes and the reaction appears in E-Notebook.



To view the generic components of the reaction, click the **Components** tab.

The display changes to show one of the generic components of the reaction.



To view a particular component, select it from the dropdown list.

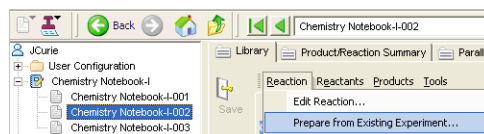
To return to the generic reaction, click the **Reaction** tab that is next to the **Components** tab.

## Preparing a Reaction from an Existing Experiment

CombiChem makes it possible for you to prepare a generic reaction from an existing experiment. When you select this option, the generic products of the existing reaction become the generic reactants of the new experiment.

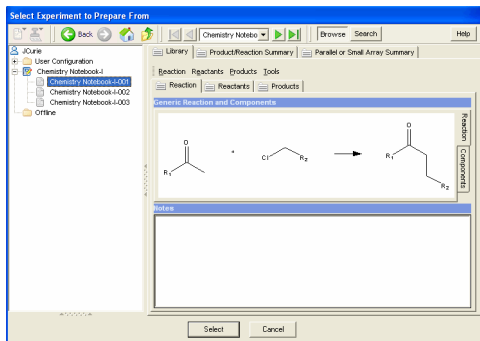
To prepare a generic reaction from an existing experiment:

1. From a CombiChem Library section, click **Reaction** in the CombiChem menu.



2. Select **Prepare from Existing Experiment**.

The Select Experiment dialog appears, with the Collection Tree displayed in the left frame.



3. Click the experiment to select it in the Collection Tree, then click the **Select** button.

The generic products of the reaction you selected appear in the reaction field.

See “Adding a Generic Reaction” on page 623 for instructions on how to edit the reaction.

## Managing CombiChem Reactants

This portion of the CombiChem guide provides instructions for managing reactants in CombiChem - adding and editing reactants, and specifying reaction sites for the product enumeration process.

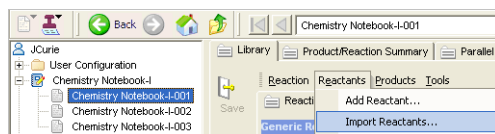
### Adding Reactants from a Chemical Database

After you have added a generic reaction, you may either add reactants from a chemical database, or draw them using the ChemDraw tools. The source of the reactants can be a ChemFinder database or any other datasource that can export MDL SDFfiles. (To create an SDFfile from ChemFinder, you can simply select the Export command from the File menu after you have run a ChemFinder query to find the reactants you wish to include in the file).

### Importing Reactants from a Chemical Database

To add reactants to a CombiChem Library from a chemical database:

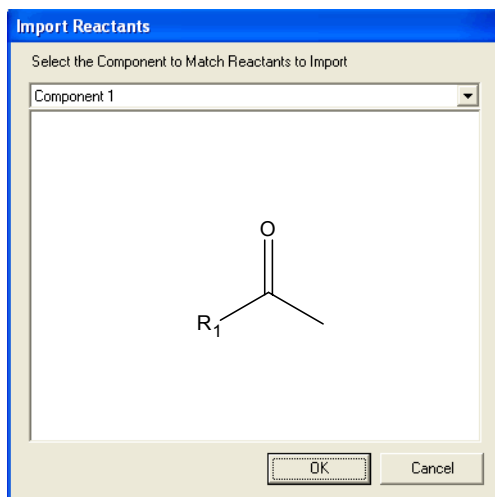
1. From a CombiChem Library section, click **Reactants** in the CombiChem menu.



The Reactants menu appears

2. Select **Import Reactants**.

The Import Reactants dialog appears, and you are prompted to select the generic component that will be matched against the chemical database.



3. Select the component to be matched from the dropdown list, and click **OK**.





The Open Chemical Structures dialog appears, and you are prompted to select the database file to be scanned for matches.

4. Select the file and click **Open**.

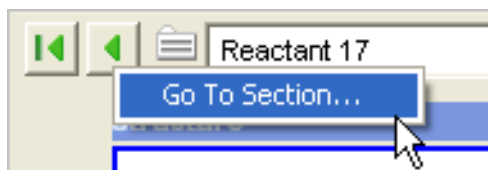
The file you selected is scanned for structures that match the generic reactant. The matches are imported into E-Notebook. Each imported reactant appears as a subsection within the Reactants section.

- Use the scroll bar to scroll through the reactants:



-  – displays the first reactant
-  – displays the previous reactant
-  – displays the next reactant
-  – displays the last reactant

You may also browse to a particular reactant by right-clicking the scroll bar and selecting Go To Section.



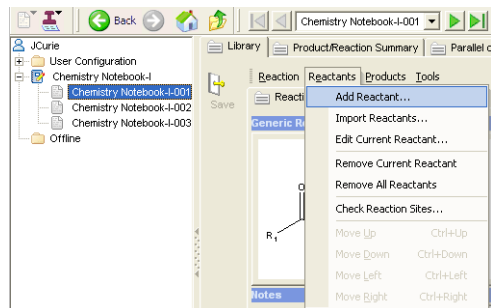
## Adding Reactants Manually

In addition to adding reactants from a chemical database, you may add the reactants manually.

To add reactants manually:

- From a CombiChem Library section, click **Reactants** in the CombiChem menu.  
The Reactants menu appears.
- Select **Add Reactant**.

The Add Reactant dialog appears, as shown below.



- In the left frame, select a generic reactant from the dropdown list.

The correct generic reactant appears in the left frame.

- Using the navigator to the right, click a location for the reactant to select that location.
- Select an Add Option:

- Insert After** – inserts the reactant after the selected reactant (to the right of the selected reactant in the plate).
- Insert Before** – inserts the reactant before the selected reactant (to the left of the selected reactant in the plate).
- Overwrite** – replaces the reactant in the selected location.

- Click **OK**.

The Edit Reactant Structure dialog appears.

- Draw the reactant or open a structure file.
- Click **OK**.

CombiChem performs a check to ensure that the reactant matches the generic component you selected. If it does not match, a message is displayed to that effect, and you are prompted to change the drawing. If it does match, the Add Reactant dialog closes, and the reactant appears as a new subsection in the CombiChem library.

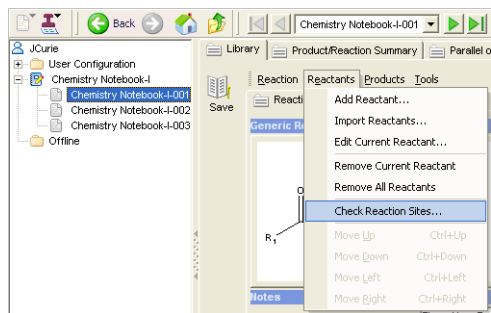
## Checking Reaction Sites

When a reactant has more than one possible reaction site, CombiChem makes it possible to choose which site(s) participate in the product enumeration process, and which do not.

To check and select reaction sites:

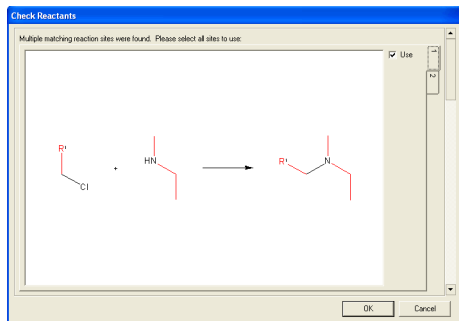
1. From a CombiChem Library section, click **Reactants** in the CombiChem menu.

The Reactants menu appears.



2. Select **Check Reaction Sites**.

The Check Reactants dialog appears. If there are multiple matching reaction sites, a message appears to that effect. The different reaction sites appear in tabs.



3. Click the numbered tabs to the right in order to view the different reaction sites.

By default, all of the possible reaction sites will be used in the product enumeration process. If there are certain reaction sites you do not want to use in the enumeration process, click the **Use** checkbox to deselect the site.

4. Click **OK** to close the Check Reactants dialog.

## Editing Reactants

Once you have added reactants to a CombiChem Library, either manually or from a chemical database, you may edit their structures.

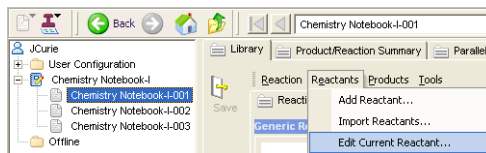
To edit the structure of a reactant in a CombiChem Library:

1. In a CombiChem Library section, click the **Reactants** tab.
2. Use the scroll bar or the Navigator to select the reactant you wish to modify.

The reactant section you wish to modify appears.

3. Click **Reactants** in the CombiChem menu.

The Reactants menu appears.



4. Select **Edit Current Reactant**.

The Edit Structure dialog appears, and you may use the ChemDraw toolbar to edit the structure.

5. Make your edits, and click **OK**.

CombiChem performs a check to ensure that the reactant matches the generic component you selected. If it does not match, a message is displayed to that effect, and you are prompted to change the drawing. If it does match, the Edit Structure dialog closes, and the modified structure appears in the CombiChem library.

## Removing Reactants from a CombiChem Library

After you have added reactants to a CombiChem Library, you may delete them. You have the option to remove a selected reactant from the CombiChem Library or to remove all of the reactants at once.

### Removing a Selected Reactant

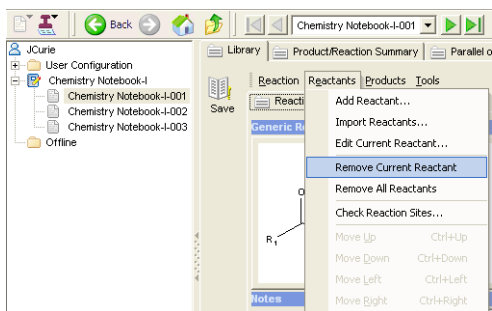
To remove a selected reactant from the CombiChem Library:

1. In a CombiChem Library section, browse to the reactant you wish to remove.

The reactant appears.

2. Click **Reactants** in the CombiChem menu.

The Reactants menu appears.



3. Select **Remove Current Reactant**.

A message appears, prompting you to confirm that you wish to remove the reactant.

4. Click **OK** to confirm.

The reactant is removed from the CombiChem Library,

### Removing All Reactants from a CombiChem Library

To remove all of the reactants from a CombiChem Library:

5. Click **Reactants** in the CombiChem menu.

The Reactants menu appears.

6. Select **Remove All Reactants**.

A message appears, stating that the action will remove all reactants and invalidate all products already enumerated.

7. Click **OK** to proceed.

All of the reactants are removed from the CombiChem Library.

## Enumerating and Managing CombiChem Products

Once you have added reactants to a CombiChem library, you can set up a template to be used for the enumerated products. Then, you can enumerate the products, either enumerating all possible products, or only selected products.

### Working with the Enumeration Template

Before enumerating the products of a generic reaction, you must create an Enumeration Template, which specifies the layout and content of the form for each enumerated product. You may either create a template to display the reactions and their corresponding stoichiometry grids, or you may create a template to display the structure and properties of the product.

### Creating an Enumeration Template

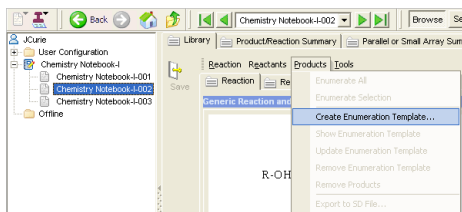
To create the enumeration template:

1. From a CombiChem Library section, click the **Products** section.

The Products section appears

2. From a CombiChem Library section, click **Products** in the CombiChem menu.

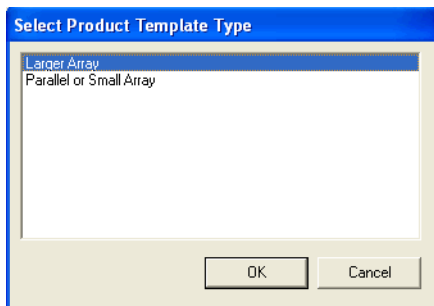
The Products menu appears.



3. Select **Create Enumeration Template**.

The Select Product Template Type dialog appears, and prompts you to select the type of template. In the example below, you may select either:

- **Parallel or Small Array** – displays each enumerated product in a reaction that also shows the reactants.
- **Larger Array** – displays each enumerated product as a structure; the output structure template does not display the reactants in the drawing.



4. Click the type of template you desire to select, and click **OK**.

The template appears in the Products section of the CombiChem Library.

5. Add any information you wish to the template. This may be reaction properties, etc. The information you enter will appear in the output section for each product you enumerate with this template.

Once you have created the enumeration template, you may enumerate products of the reaction. If you would like to apply different settings to different wells, you can set up an enumeration template, and then use the **Enumerate Selection** feature to enumerate only selected wells. Then, you can set up another enumeration template, and enumerate a different selection of wells. Each time you enumerate a selection, the template settings will be applied to each product that is enumerated.

## Showing an Enumeration Template

To view the current enumeration template:

1. From a CombiChem Library section, click **Products** in the CombiChem menu.

The Products menu appears

2. Select **Show Enumeration Template**.

The Enumeration Template appears.

## Updating an Enumeration Template

If you wish to edit the current Enumeration Template:

1. From a CombiChem Library section, click **Products** in the CombiChem menu.

The Products menu appears.

2. Select **Update Enumeration Template**.

The Enumeration Template appears, and you may edit it as desired.

## Removing an Enumeration Template

If you wish to remove the current Enumeration Template to, for example, replace it with a new Enumeration Template:

1. From a CombiChem Library section, click **Products** in the CombiChem menu.

The Products menu appears.

2. Select **Remove Enumeration Template**.

The Enumeration Template is removed from the CombiChem Library.

## Enumerating Products

When you enumerate the products of the generic reaction, you may either enumerate all possible products, or only a selection of the products.

### Enumerating All of the Products of a Generic Reaction

To enumerate all of the products for a reaction:

1. From a CombiChem Library section, click **Products** in the CombiChem menu.

The Products menu appears

2. Select **Enumerate All**.

The Enumerating Products dialog appears, showing the progress of the enumeration.

When the enumeration is complete, each product appears as a subsection in the Products tab.

You may scroll through the products to view them. Depending upon your enumeration template, the products will either be displayed as structures or displayed in reactions. If they are displayed in reactions, the stoichiometry grid will be populated for each individual reaction.

If, in the enumeration process, the number of products exceeds the number of wells in the product plate, additional plates will be generated.

### Enumerating Selected Products of a Generic Reaction

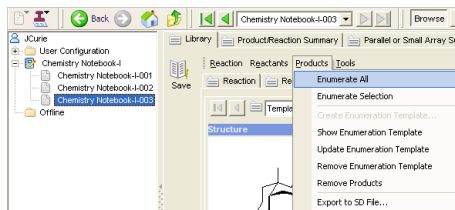
To enumerate only selected products of the reaction:

3. Click the **Navigator** button.

The navigator appears.

4. Using your mouse, highlight the locations representing the products you wish to enumerate. You do this by clicking the first location in the range, and then dragging your mouse to select the entire range. Or, you may use Ctrl+click to select multiple locations that are not contiguous.

5. Right-click your selection, and choose **Enumerate Selection** from the menu that appears.



The selected products are enumerated, and appear in the Products section. (In this example, the products corresponding to columns 1 and 2 will be enumerated).

## Exporting Products to an SD File

CombiChem makes it possible for you to export products to an SD file, which you may then import into ChemFinder.

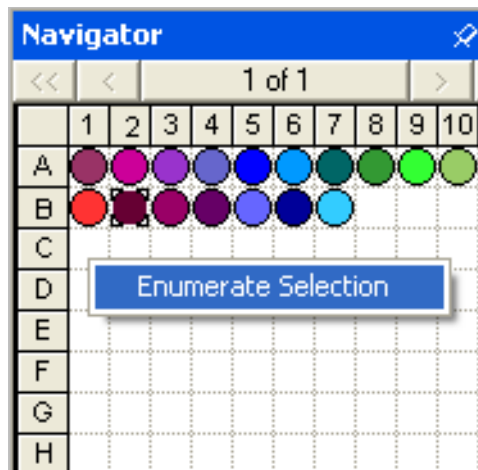
To export products to an SD file:

1. From a CombiChem Library section, click the **Products** tab to select it.

The Products tab appears.

2. Click **Products** in the CombiChem menu.

The Products menu appears.



3. Select **Export to SD File**.

A dialog appears, and you are prompted to enter a name and location for the file.

4. Enter the name and location and click **Save**.

The products are exported to the SD File. The file may be opened with ChemFinder.

You may also open the file with ChemFinder for Excel, which is useful for viewing and printing the products.

## Removing Products from a CombiChem Library

After you have enumerated products in a CombiChem Library, you may remove them from the library.

To remove the products from a CombiChem Library:

1. In a CombiChem Library section, click the **Products** tab to select it.

The products tab appears.

2. Click **Products** in the CombiChem menu.

The Products menu appears.

3. Select **Remove Products**.

A message appears, stating that the action will irrevocably remove all enumerated products, and asking you to confirm that you wish to remove them.

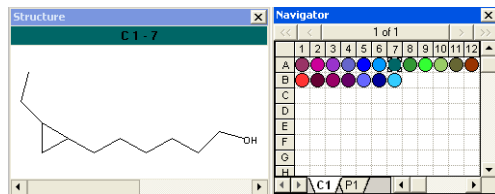
4. Click **Yes** to confirm.

The products are removed from the CombiChem Library.

## Using the CombiChem Navigator and Structure Window

The CombiChem Navigator represents a plate, and can be used as a tool to browse through the reactants and products in CombiChem. When a location is selected in the CombiChem Navigator, the

CombiChem Structure Window displays the components of the reaction in that location.



Both the Navigator and the Structure Window can be viewed either in a docked position on the screen or as floating palettes.

## Using the CombiChem Navigator

CombiChem offers a color-coded Navigator palette that represents a plate. When you are viewing the Products portion of a CombiChem library, each location or well in the Navigator represents an individual reaction. Selecting a well makes it possible for you to view the reaction components that correspond to that well. Thus, by clicking locations in the Navigator, you can browse through the reactions/products in the CombiChem library.

At the base of the navigator, there is a tab for each generic reactant, and a tab for enumerated products. Clicking a tab displays the locations of the corresponding component in the plate. Each unique reactant or product is denoted with a unique color.

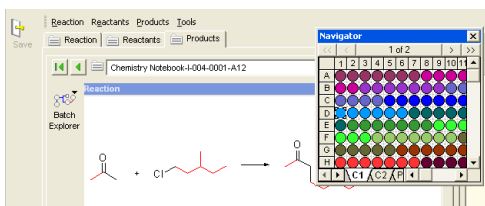
In addition to the Navigator, CombiChem provides a structure palette, which displays the structures of the reactants and products in a well. When you click a particular well in the navigator and the structure palette is displayed, the structure palette will change to display the structures in the well you selected. See “Using the Structure Window” on page 633 for more information.

When you are viewing the Reactants portion of a CombiChem library, the Navigator changes to display the reactants plate, and allows you to browse through the individual reactants.

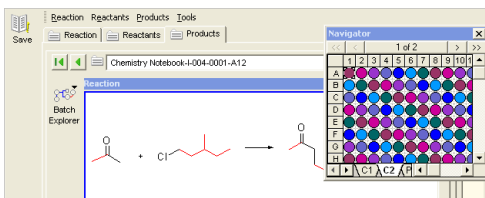


## Using the Navigator when in Products Mode

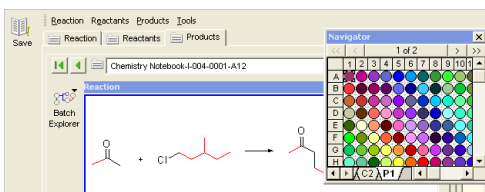
Below, the Products section of a CombiChem Library is shown. The products have already been enumerated. Clicking the C1 tab in the Navigator displays the plate locations of the reactants that match C1, the first generic component of the reaction. In this example, you can see that there are thirteen separate structures corresponding to the first generic component. Each structure is denoted with a unique color.



Clicking the C2 tab in the Navigator displays the locations of the reactants that match C2, the second generic component of the reaction. In this example, there are seven, individual structures corresponding to the second generic component. Again, each structure is denoted with a unique color.



Clicking the P1 tab displays the enumerated products of the reaction. In this example, there are ninety one—(13 C1 \* 7 C2)—one for each unique combination of the reactants.



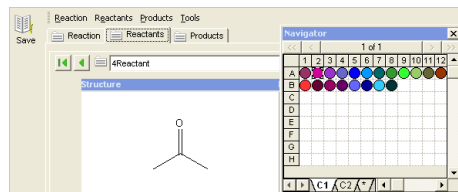
To display any one of the enumerated products/reactions, simply click the well corresponding to the reaction in the Navigator.

The displayed section changes to reflect your choice.

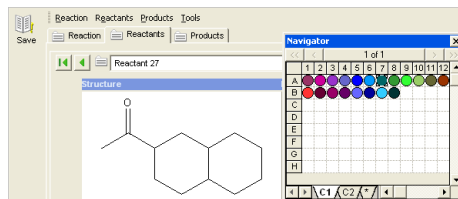
## Using the Navigator in Reactants Mode

In addition to using the Navigator to browse through products/reactions when in Products mode, you may use the Navigator when in Reactants mode. The plate in this case may represent the locations of the reactant stocks that are used to fill the product/reaction plate.

Below, the Reactants section of the same CombiChem library is shown. The tab for C1, corresponding to the first generic reactant, is displayed. Click any of the locations in the Navigator to view the corresponding structure that matches C1. For example, clicking position A2 in the Navigator displays the second C1 reactant.

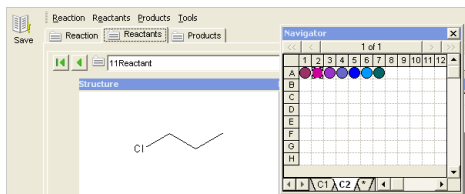


Clicking the location A7 in the navigator displays the second structure that matches C1:



To view the reactants that match the second generic component of the reaction, click the C2 tab. Then, click any of the locations in the Navigator.

tor to view the corresponding structure that matches generic component C2.



## Viewing and Hiding the Docked CombiChem Navigator

You have the option to either view the navigator palette in a docked position or in a floating position, depending upon your viewing preference. Initially, the Navigator is docked, but you may remove it from its dock and relocate it to any area on the CombiChem screen. This allows you to customize the appearance of your CombiChem library.

When the CombiChem Navigator is docked, you use the Navigator button to display it. To view the CombiChem Navigator when it is docked,


From the Reactants or Products section in a CombiChem Library, move your cursor until it is over the Navigator button.


The Navigator appears, sliding out from its dock.

To hide the docked the navigator, simply move your cursor to an area of the screen that is outside of the Navigator, and the Navigator will slide into its dock again.

## Viewing the Navigator as a Floating Palette

To remove the Navigator from its dock and view it as a floating palette, as shown below.

1. If the Navigator is not already visible, move your cursor over the Navigator button, so that the Navigator becomes visible and slides out from its dock.
2. Click the docking button  in the upper right corner of the Navigator palette.

The appearance of the docking button changes to indicate that the Navigator is no longer docked. 

3. Drag the Navigator to any place on the screen.

The Navigator appears in the new location

You may also resize the Navigator for more favorable viewing. (To do this, move your cursor to the edge of the Navigator until it appears as a double-headed arrow, and then drag your mouse to resize the Navigator).

## Docking the Navigator at Another Location

You may also dock the navigator elsewhere, such as at the top or bottom of the section. To do this

1. View the Navigator as a floating palette. This may require releasing the Navigator from its dock, as described above.
2. Drag the Navigator toward a boundary of the section.  
As you drag the Navigator a gray rectangle appears to show you what the new location will be if you release the mouse at that point.
3. Drag the Navigator until the gray rectangle expands to the width or length of the section. This should happen when your cursor is position over an edge or corner of the section.
4. Release the mouse.

The Navigator is docked at the new location.

If you copy the Structure palette on top of the Navigator, a button for each palette will appear, allowing you to switch back and forth between the two palettes.

## Using the Structure Window

When you select a location in the CombiChem Navigator, the CombiChem Structure Window displays the structures that participate in that reaction. You may use the scroll bar to scroll through the reactants and enumerated products in that well.

## Viewing and Hiding the Docked CombiChem Structure Window

When the CombiChem Structure Window is docked, you use the Structure button to display it.

To view the CombiChem Structure Window when it is docked:

1. From the Products section in a CombiChem Library, click a location in the Navigator to select it.

The reaction or product corresponding to that well is displayed.

2. Move your cursor until it is over the Structure button. (The button may be either vertically or horizontally oriented).

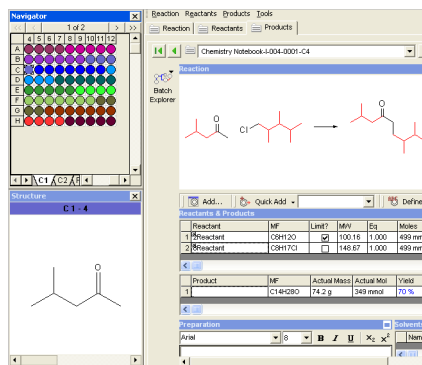
The Structure Window appears, sliding out from its dock.

3. Use the scrollbar at the base of the Structure Window to scroll through the reactants and product in the well.
4. To hide the docked Structure Window, simply move your cursor to an area of the screen that is outside of the Structure Window, and the Structure Window will slide into its dock again.

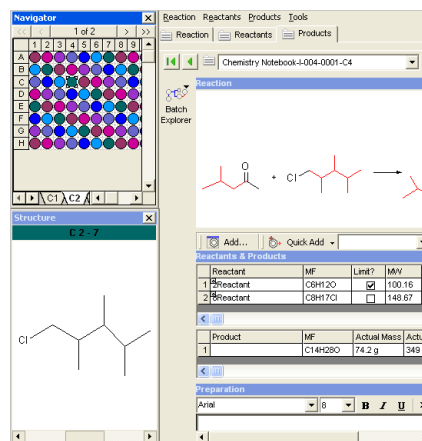
In the example shown below, the Navigator is displayed in the upper left. The well at location C 4 is selected. The reaction corresponding to this well is shown to the right. In the lower left, the Structure

Window displays the structure that matches the first generic component of this reaction.

**TIP:** The color of the reactant in the Navigator and the Structure Window are the same.

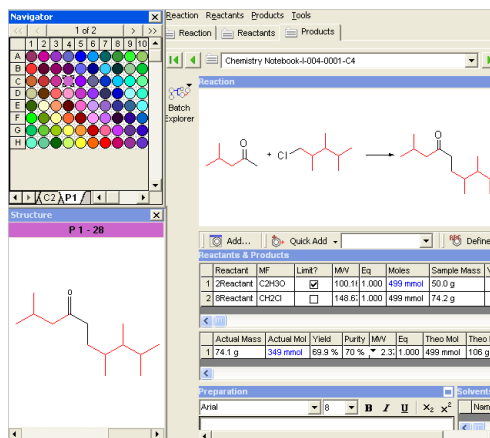


Scrolling one position to the right using the scrollbar at the base of the Structure Window displays the reactant in this well that matches C2, the second generic component of the reaction.



Scrolling to the right once more displays the product of the reaction in this well.


**NOTE:** The selected tab in the Navigator does not change automatically to reflect the component you are viewing in the Structure Window.



## Viewing the Structure Window as a Floating Palette

As with the Navigator palette, you have the option to either view the Structure Window in a docked position or in a floating position, depending upon your preference. Initially, the Structure Window is docked, but you may remove it from its dock and relocate it to any area on the CombiChem screen. This allows you to customize the appearance of your CombiChem library.

To remove the Structure Window from its dock and view it as a floating palette, as shown below.

1. If the Structure Window is not already visible, move your cursor over the Structure Window button, so that the Structure Window becomes visible and slides out from its dock.
2. Click the docking button  in the upper right corner of the Structure Window.

The appearance of the docking button changes



to indicate that the Structure Window is no longer docked.

3. Drag the Structure Window to any place on the screen.

The Structure Window appears in the new location

You may also resize the Structure Window for more favorable viewing. To do this:

4. Move your cursor to the edge of the Structure Window until it appears as a double-headed arrow.
5. Drag your mouse to resize the Structure Window.

## Docking the Structure Window at Another Location

You may also dock the Structure Window elsewhere, such as at the top or bottom of the section. To do this:

1. View the Structure Window as a floating palette. This may require releasing the Structure Window from its dock, as described above.
2. Drag the Structure Window toward a boundary of the section.

As you drag the Structure Window, a gray rectangle appears to show you what the new location will be if you release the mouse at that point.

3. Drag the Structure Window until the gray rectangle expands to the width or length of the section. This should happen when your cursor is positioned over the edge or corner of the section.
4. Release the mouse.

The Structure Window is docked at the new location.

If you drag the Structure Window on top of the Navigator, a button for each palette will appear, allowing you to switch back and forth between the two palettes.

## Managing Plate Layout and Structure Palette Settings

The CombiChem library has a number of settings that you can modify in order to present your data accurately and effectively. You can modify the layout of reactants and products in a plate. You can also modify the naming and numbering schemes for enumerated products. In addition, CombiChem makes it possible for you to modify the way that structures are displayed in the library.

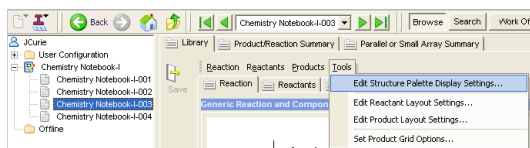
### Editing Structure Palette Display Settings

You can modify the settings for the structure palette that is used in a CombiChem library. The settings you apply will only be visible in the structure window of the CombiChem Navigator.

To do this:

- From a CombiChem library, click Tools in the menu.

The Tools menu appears.



- Select Edit Structure Palette Display Settings.

The Edit Display Settings dialog appears. It contains a ChemDraw field.

- Right-click within the ChemDraw field to display the ChemDraw menu.

The menu is displayed.

- Select File, and Apply Document Settings From.

- Select the source for the settings from the list that appears, or select Other to choose another file.

- Click OK to close the Edit Display Setting dialog.

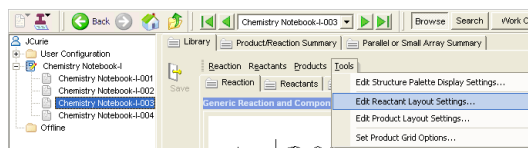
## Editing Reactant Layout Settings

You can modify the layout of reactant plates in CombiChem. When the Reactants tab is selected in the CombiChem Library, the Navigator will display the layout that you have configured.

To do this:

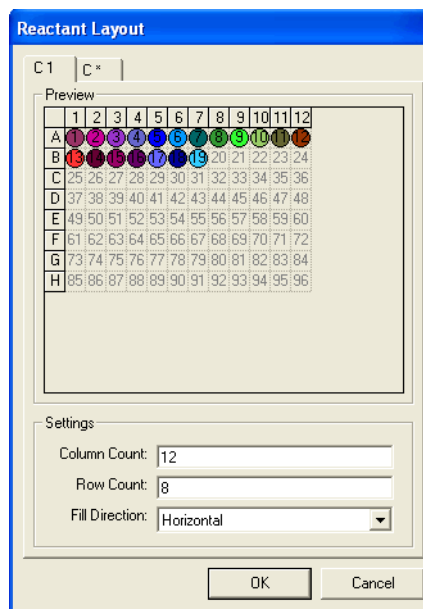
- From a CombiChem Library, click Tools in the menu.

The tools menu appears.



- Select Edit Reactant Layout Settings.

The Reactant Layout dialog appears.



- Click the tab corresponding to the generic reactant whose layout you wish to change. In this example, C1 is selected.

- You may modify the following information:

- Columns** – the number of columns in the plate.

- **Rows** – the number of rows in the plate.
  - **Fill Direction** – the direction in which the plate is populated with the structures that match this component.
5. Click another tab if you wish to modify the layout of another component.
  6. Click OK to close the dialog.

## Editing Product Layout Settings

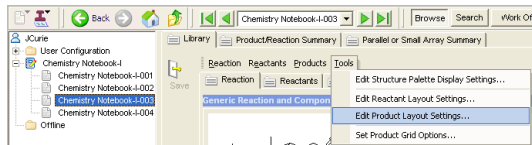
You can modify the layout of the product/reaction plate in CombiChem, changing the size of the plate, the grouping order of components, and specifying which wells are to remain empty.

When the Products tab is selected in the CombiChem Library, the Navigator will display the layout that you have configured.

To edit the product layout settings:

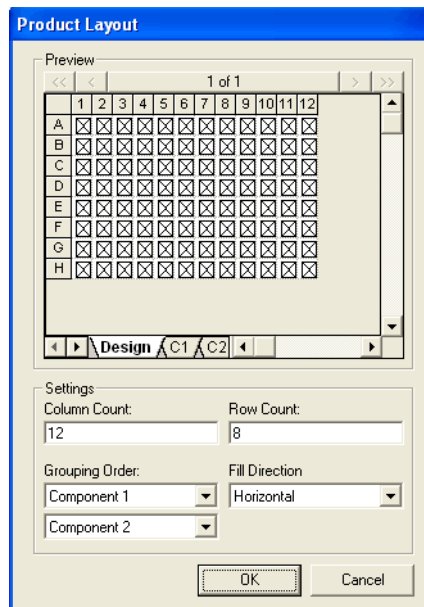
1. From a CombiChem library, click Tools in the menu.

The Tools menu appears.



2. Select Edit Product Layout Settings.

The Product Layout dialog appears, open to the Design tab.

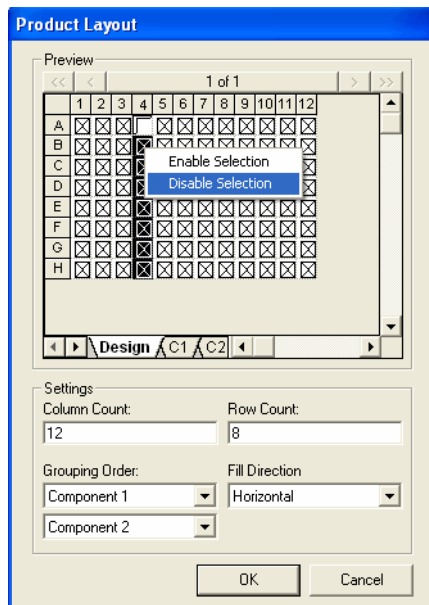


## Specifying Empty Wells in the Plate

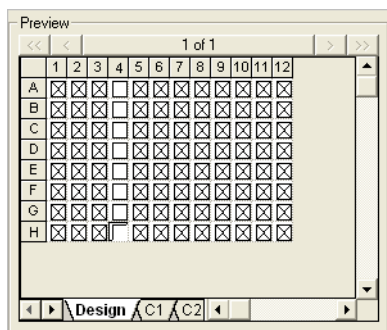
You can specify which wells are to be left blank in the plate. To do this,

1. Use your mouse to select the wells you would like to be empty. You may do this by:
  - Clicking the first well you are selecting and dragging your mouse to the last well, **OR**
  - Clicking a column header or row number to select an entire column or row. You may use CTRL+click to select multiple columns or rows.

2. Right-click your selection, and select **Disable Selection** from the context menu.



The Xs are removed from the wells, leaving the wells blank:



Alternatively, you may click each well individually to disable it.

## Changing the Size of the Plate

To change the size of the product/reaction plate:

In the Product Layout dialog, type in new values for the Column Count and Row Count.

The plate layout changes to reflect the new values.

## Changing the Grouping Order

You can change the order in which components are laid out in the product/reaction plate. By default, the first generic component is filled into the plate with a horizontal fill direction, from left to right; the second generic component is laid out vertically, within the array of the first component.

3. In the Product Layout dialog, select the first component to be laid out in the plate from the dropdown list.
4. Select the Fill Direction for the component from the dropdown list.

The next component will automatically assume the fill direction that is perpendicular to your selection.

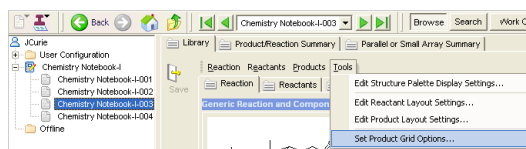
## Setting Product Grid Options

You can modify the settings that determine how products are named and numbered in a CombiChem Library.

To do this:

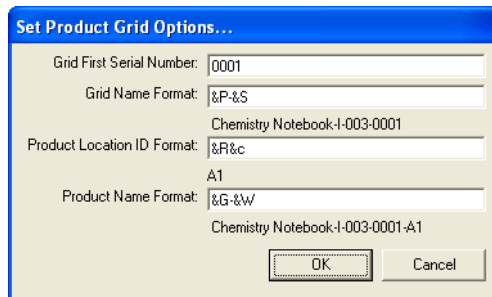
1. From a CombiChem library, click **Tools** in the menu.

The tools menu appears.



2. Select **Set Product Grid Options**.

The Product Grid Options dialog appears.



3. Mouse over any of the values to view its description. You may modify any of the following:
  - **Grid First Serial Number** – the number that is assigned to the first product/reaction plate. The default value is 0001. (Note that there may be multiple plates in a library if, during the enumeration process, the number of products exceeds the number of locations in the grid).
  - **Grid Name Format** – the format for the name of the grid.
    - **&P** – represents the collection name
    - **&S** – represents the serial numberIn the example above, the name of the collection is “CombiChem-Notebook-009” and the serial number is 0001. Hence, the grid name is “CombiChem Notebook-009-0001”
  - **Product Location ID Format** – the format for the ID of the product location.
    - **&R** – row number
    - **&c** – column number. Use a lower case letter for this value.

In the example above, the product location is row number followed by column number. So, the product in the first column and second row would be B1; the product in the fourth column and third row would be C4, etc. (This assumes that the rows and columns have not been rearranged in the plate).

- **Product Name Format** – the format for the name of the product.
    - **&G** – grid name (as specified in the grid name format)
    - **&W** – product location ID (as specified in the product location ID format).In the example above, the product name is the grid name followed by the product location ID. Thus, the name for the product in location A1 is CombiChem Notebook-009-0001-A1.
4. Click OK to close the dialog and save your changes.





# Chapter 34: Miscellaneous Topics

This portion of the guide provides a description of the following:

- Using the Session Manager
- Refreshing E-Notebook
- Viewing User Information

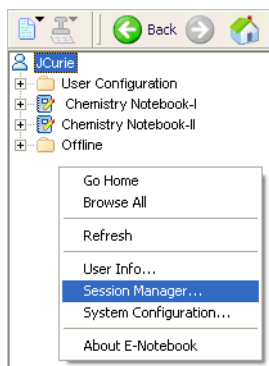
## Using the Session Manager

In certain situations, an E-Notebook session may be left open. With the Session Manager, you can end your old session, and release any collection that may be locked by it.

To access the Session Manager,

1. Right-click within a blank portion of the Collection Tree.

A menu appears:

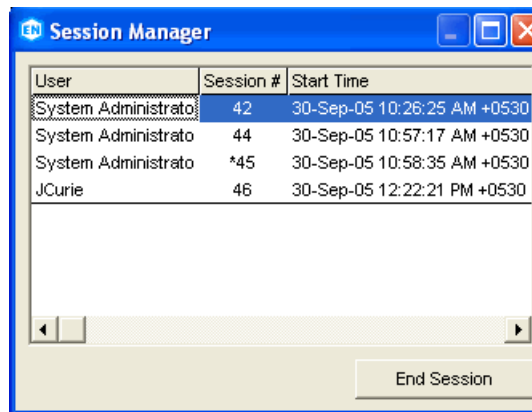


2. Select Session Manager....

Alternatively, click Tools from the menu bar at the top in the window and select Session Manager....



The Session Manager appears.



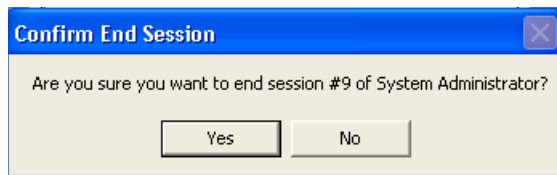
This dialog shows the Users, Session numbers, and Start Times for each current session.

## Ending a Session

If you wish to end a session:

1. Click the session in the list.  
The session is highlighted.
2. Click the End Session button.

A message appears, asking you to confirm that you wish to end the session.



3. Click Yes.

The session is ended. Any record that was locked by the session is released.

---

**NOTE:** You must have Full Control permission over your home collection (your user collection) to end your sessions.

---

## Refreshing E-Notebook

If other users add information to E-Notebook, you may need to refresh your view of E-Notebook so that you can see their changes.

To refresh E-Notebook:

1. Click Browse.

The Collection Tree appears.

2. Right-click any blank area in the Collections Tree.

A menu appears.

3. Select Refresh.

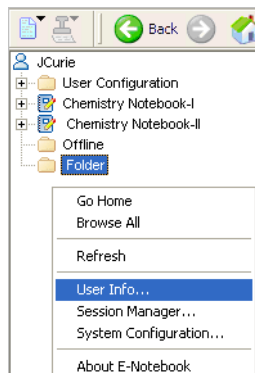
E-Notebook information is updated.

## Viewing User Information

You can see specific information about the user who is currently logged into E-Notebook.

To do this:

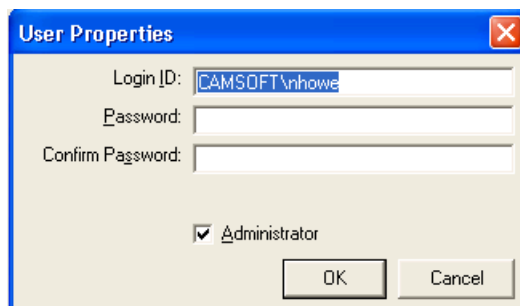
1. Click Browse.
2. Right-click a blank space in the Collection Tree.



A menu appears.

3. Select User Info....

The User Properties dialog box appears. It contains the following information:



- **Login ID** – the Login ID of the user who is currently logged into E-Notebook.
- **Password** – Depending upon the type of login authentication your system uses, this field may be used to change the password for the logged-in user.
- **Administrator** – a checkbox that indicates whether the user has administrative privileges.

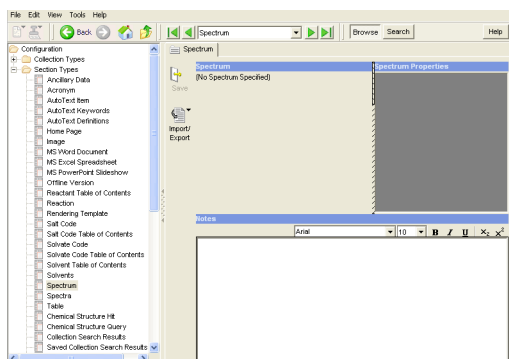
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**NOTE:** This checkbox is only visible if the logged-in user is an administrator.

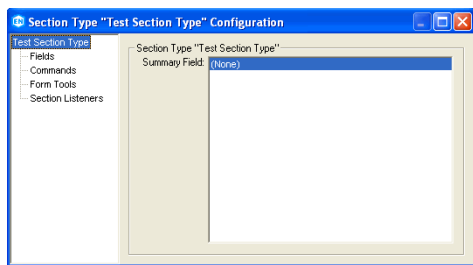
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# Chapter 35: Managing Section Types and Forms

Section types are used for displaying and managing data in E-Notebook. Each section type has a single form associated with it; this form appears in the right frame when a section type is selected in the Collection Tree.



To set up a section type, you add fields, form tools, and section listeners. Then, you configure the fields and form tools to create the form. You may also specify a summary field for a table of contents. The Section Type Configuration dialog is shown below.



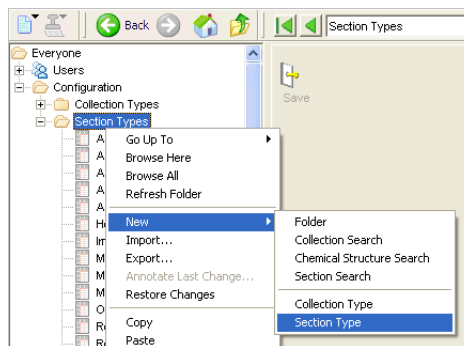
Once you have configured the form, you create an export template, which allows users to print sections of this type, and to export them to MS Word.

## Creating a New Section Type

A section type defines an E-Notebook data section or search section. A section type is composed of fields, form tools, section listeners, and an export template.

To create a new section type,

1. In the Collection Tree, right-click the folder or collection into which you are adding the section type.  
The collection menu appears.
2. Select New, then Section Type.

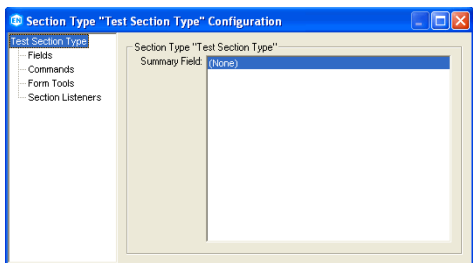


A new section type appears in the Collection Tree; its blank form appears to the right. You are prompted to enter a new name for the section type.

3. Type in a new name for the section type.
4. Right-click the new section type in the Collection Tree and select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears. This is the dialog through which you add the following components:

- Fields
- Form Tools
- Section Listeners



## Managing Fields within a Section Type

You can add fields to a section type, and use them to create a form and an export template. You can also specify which field will appear in the table of contents of a container collection. For information about the individual fields and their properties, see “Managing Fields” on page 683.

### Adding a Field to a Section Type

In order to configure a form for E-Notebook, you must first add fields to the section type.

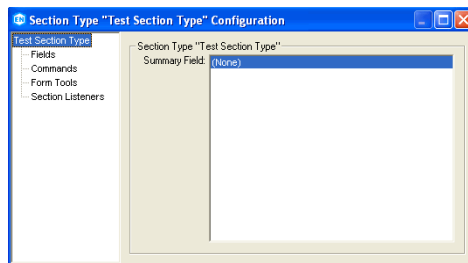
To add a field to a section type:

1. Right-click the section type in the collection tree.

The collection menu appears.

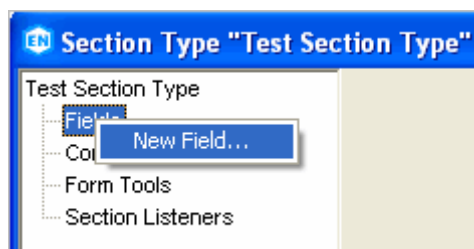
2. Select Section Type Configuration from the menu.

The Section Type Configuration dialog appears:



3. Right-click Fields, and select New Field.

The Add Field dialog appears.



4. Enter a name for the field and select a Field Type.

Each type of field has its own, special characteristics and configuration options. See “Managing Fields” on page 683 for a description of each field type, and instructions for configuring the field.



5. Click Add.

The new field appears in the list of fields.

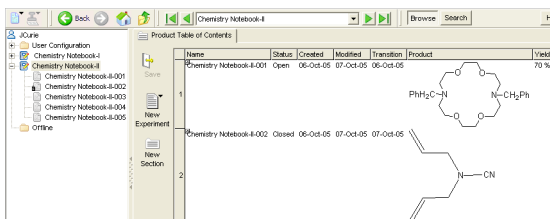
6. Repeat steps 3 through 5 to add multiple fields to the section type.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Summary Fields in a Table of Contents

For each section type, you can specify a summary field that will appear in the table of contents of a parent collection. The summary field is displayed in the table of contents if that section is the first section in a collection.

For example, if the chemical structure field is the summary field of a reaction section type, and the reaction section is the first section in a page/experiment, then the reaction drawing will appear in the table of contents for the the notebook, as shown below:



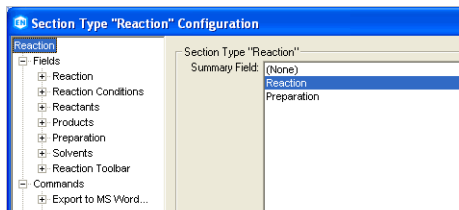
To set the summary field for a section type,

1. Right-click the section type in the Collection Tree.

The collection menu appears.

2. Select Section Type Configuration from the menu.

The Section Type Configuration dialog appears:



3. In the right frame, click the field that you wish to be the summary field for this section type.

You may only select one of the following types of fields as a summary field:

- a styled text field
- a chemical structure field
- a spectrum field

4. Close the dialog.

If you do not specify a summary field, the name of the first section will appear in the table of contents.

## Managing Form Tools

If you would like to perform data analysis or messaging within a particular E-Notebook section, you can associate a form tool with that section type.

E-Notebook provides several standard form tools.

You can also develop your own, customized form tools.

## Adding a Form Tool to a Section Type

A form tool is used to perform a particular function in an E-Notebook form. E-Notebook provides a number of form tools, such as the Reaction Form Tool, which you can add to new section types you create.

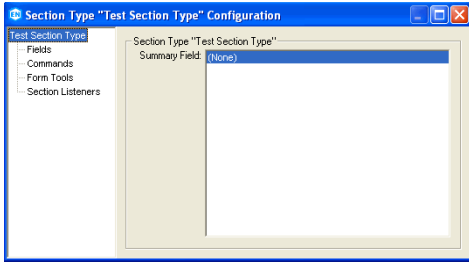
To add a form tool to a section type:

1. Right-click the section type in the Collection Tree.

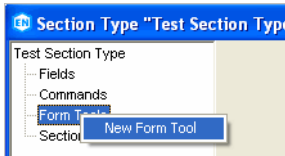
The collection menu appears.

2. Select Section Type Configuration from the menu.

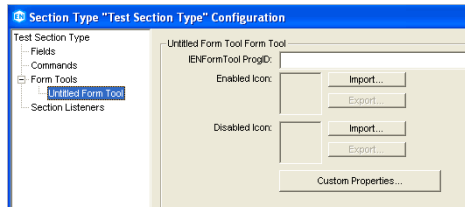
The Section Type Configuration dialog appears:



3. Right-click Form Tools, and select New Form Tool.



4. A new form tool appears in the tree, and you prompted to name it.



5. Enter a name, and fill in the IENFormTool ProgID.

This is the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is OleServer-Name.ObjectName.

For the ProgID's of the standard, E-Notebook form tools, see “Managing the Standard Form Tools” on page 650.

6. To associate an Enabled icon with the form tool, click the Import... button.

A dialog appears, prompting you to select the file icon file.

7. Select the file and click Open.

The icon is associated with the form tool, and appears in the Enabled Icon box.

8. Associate a disabled icon with the form tool, (following steps 6 and 7, above). This icon will appear when the form tool is disabled.
9. If the form tool has properties to configure, click the Custom Properties button.

The form tool properties dialog appears, and you may configure the custom properties of the form tool.

10. Click OK to dismiss the form tool properties properties dialog.

The properties dialog closes.

11. To close the section type configuration dialog, click the close button in the upper right corner.

The dialog closes. The form refreshes, and displays the icon associated with the form tool.

## Viewing and Editing the Properties of a Form Tool

You can view and edit the custom properties that are associated with a form tool. For example, you may want to associate the form tool with a different field in an E-Notebook form. Or, if you had developed a form tool to conduct calculations, you may want to change a property that defines the precision of the calculated results.

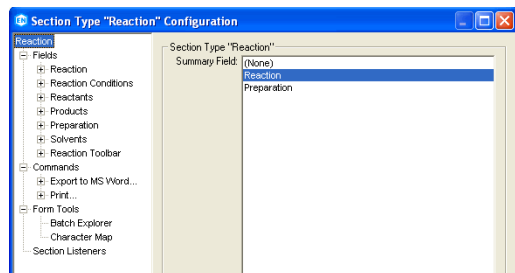
To view and edit the properties of a form tool:

1. Right-click the section type in the Collection Tree.

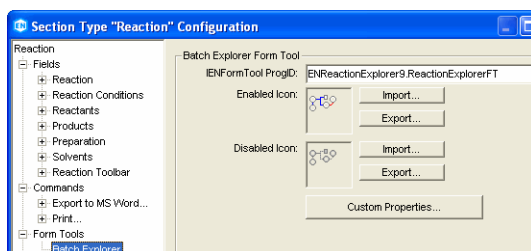
The collection menu appears.

2. Select Section Type Configuration from the menu.

The Section Type Configuration dialog appears:



3. If necessary, click the plus sign next to form tools to expand the list and view the form tools that are associated with the section type. Click the form tool whose properties you wish to view or change.



The ProgID's and license key information appears to the right. You may edit this information if you wish.

4. Click the Custom Properties button.

If the form tool has properties associated with it, the form tool properties dialog appears. This example shows the dialog associated with the Next Step Form Tool:



**NOTE:** If the form tool has no custom properties, a message to that effect is presented, and no properties dialog is displayed.

5. Edit the custom properties if desired, and click OK to close the properties dialog.
6. To close the section type configuration dialog, click the close button in the upper right corner. The dialog closes. The form refreshes.

## Removing a Form Tool from a Section Type

If you no longer want a particular form tool to be associated with a form, you can remove it from the section type.

To remove a form tool from a section type:

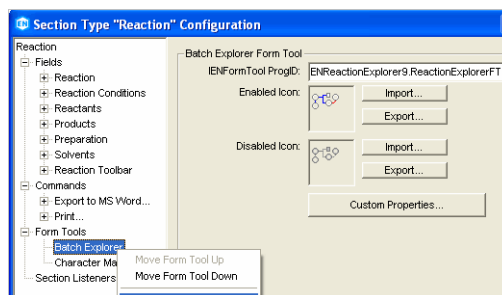
1. Right-click the section type in the Collection Tree.

The collection menu appears.

2. Select Section Type Configuration from the menu.

The Section Type Configuration dialog appears.

3. If necessary, click the plus sign next to form tools to expand the list and view the form tools that are associated with the section type. Right-click the form tool you wish to remove from the form. A menu appears:



4. Select Delete Form Tool.

A message appears, asking you to confirm that you wish to delete the form tool from the section type.

5. Click Yes.

The form tool is deleted.



6. To close the section type configuration dialog, click the close button in the upper right corner. The dialog closes. The form refreshes. If there was an icon associated with the form tool, it no longer appears in the form.

## Managing the Standard Form Tools

E-Notebook provides a number of standard form tools. The form tools listed below may only be associated with section types. There are several form tools that may only be associated with collection types, for example, the New Section Form Tool. See “Managing Collection Type Form Tools” on page 747 for more information.

## Managing the Next Step Form Tool

The Next Step Form Tool is used to create a new page or experiment containing the products of the associated chemical reaction.

In order to use the Next Step Form Tool in an E-Notebook form, one of each of the following types of fields must be present in the form:

- Chemical Structure Field
- Table Field with Reactants Listener
- Table Field with Products Listener

---

### Form Tool    Form Tool Control ProgID

Next Step	ENStandardCtl9.ReactionFormTool
-----------	---------------------------------

When you add a Reaction Form Tool to a form, you must configure the following custom properties.



The E-Notebook User Guide provides more information about the tool and the calculations in the stoichiometry grid. The stoichiometric grid is the combination of the Reactants and Products Fields.

## Managing the New Section Form Tool

The New Section Form Tool allows users to add new sections to a collection, for example, to a page or an experiment. When users click the form tool they will be presented with a list of the types of sections they may add.

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### Form Tool    Form Tool Control ProgID

NewSection	ENStandardCtl9.NewSectionFormTool
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## Managing the New Subsection Section Form Tool

The New Subsection Form Tool allows users to add new subsections to a section. For example, a user may add new spectrum subsections to a spectra section. When users click the form tool they

will be presented with a list of the types of sections they may add.

## Form Tool      Form Tool Control ProgID

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New Subsec- tion	ENStandardCtl9.NewSubsection- FormTool
---------------------	---

## Managing the Spectrum Form Tool

The Spectrum Form Tool is used in conjunction with a spectrum field to import and export spectral data from a file into an E-Notebook section.

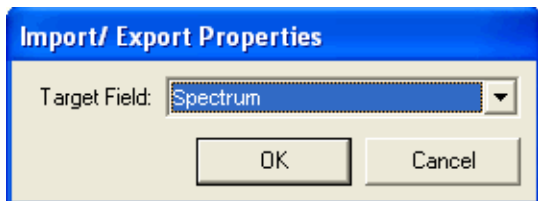
## Form Tool      Form Tool Control ProgID

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Spectrum	ENStandardCtl9.Spectrum- FormTool
----------	--------------------------------------

In order to use the Spectrum Form Tool in a form, a Spectrum Field must be present in the form.

When you add a Spectrum Form Tool to a form, you must configure the following custom properties:



## Managing the Active Document Form Tool

The Active Document Form Tool is used in to import and export documents to and from an

E-Notebook Section. When the form tool can also compute the checksum for the uploaded file and display it in a property list.

## Form Tool      Form Tool Control ProgID

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Active Docu- ment	ENStandardCtl9.ActiveDoc- FormTool
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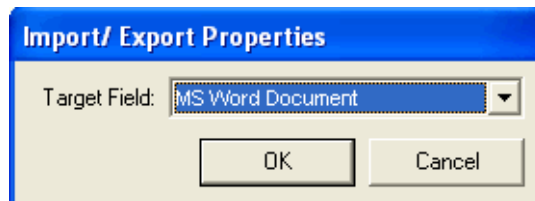
In order to use the Active Document Form Tool in an E-Notebook form, the following types of fields must be present in the form:

- Active Document Field **OR**
- Stored Document Field **OR**
- Excel OLE Control Field

If you wish to display the checksum, source file path, and source file name, the section type must also contain a property list with the following properties:

- Source File Name
- Source Path
- Checksum

When you add an Active Document Form Tool to a form, you must configure the following custom properties:



## Managing the Insert Reference Form Tool

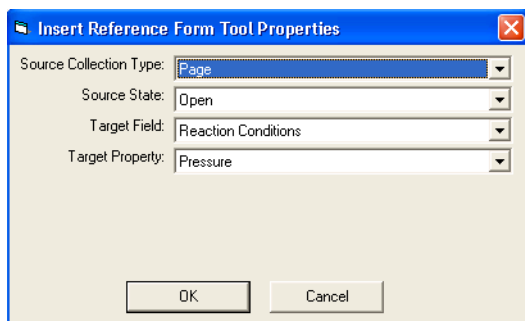
The Insert Reference Form Tool makes it possible for users to insert references to a specific collection type into a target property in a property list.

Form Tool	Form Tool Control ProgID
-----------	--------------------------

Insert Reference	ENStandardCtl9.InsertReferenceFormTool
------------------	--

In order to use the Insert Reference Form Tool in an E-Notebook form, a Property List field must be present in the form.

When you add a Insert Reference Form Tool to a form, you must configure several custom properties.



- **Source Collection Type** – the type of collection that a user may reference in the target property.
- **Source State** – the state that the collection must be in when the reference to it is created.
- **Target Field** – the property list field in which the user may create the reference.
- **Target Property** – the specific property in the property list to which the user may add the reference.

In this example, a user may add a reference to a collection of type Page. The collection must be in an Open state when the reference is created.

Note that if you wish to prevent users from adding references to other collection types, you must make the target property read-only in the property list. This will prevent users from dragging or copying other references into the property, and force them to use the Insert Reference Form Tool.

## Managing the Print Multiple Form Tool

The Print Multiple Form Tool allows a user to print multiple collections with a single action. .

Form Tool	Form Tool Control ProgID
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Print Multiple	ENStandardCtl9.PrintMultipleFormTool
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If the collection containing the section in which the form tool appears has contained collections or references, a dialog box appears when the user selects the Print Multiple form tool. The dialog allows the user to specify the range of contained collections to be printed.

The Print Multiple Form Tool has no custom properties.

## Managing Section Listeners

A Section Listener modifies the behaviors of sections—such as the add, duplicate, remove, move and rename behaviors. E-Notebook provides several, standard section listeners, which you may add to section types.

You may also develop your own section listeners to further customize the behavior of sections in E-Notebook.

### Adding a Section Listener to a Section Type

A section listener modifies the behaviors of sections — such as the add, duplicate, remove, move and rename behaviors.

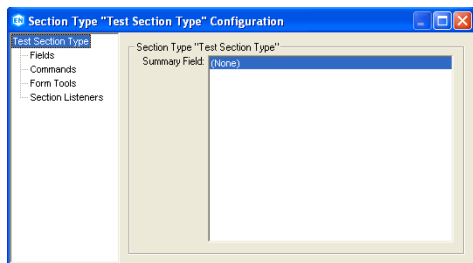
To add a section listener to a section type:

1. Right-click the section type in the Collection Tree.

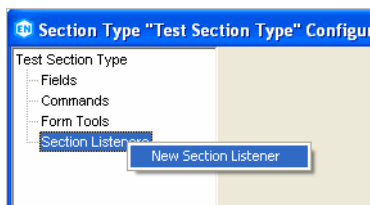
The collection menu appears.

2. Select Section Type Configuration from the menu.

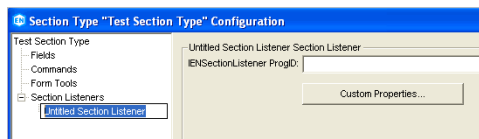
The Section Type Configuration dialog appears:



3. Right-click Section Listeners, and select New Section Listener.



4. A new Section Listener appears in the tree, and you are prompted to name it.



5. Enter a name for the section listener
6. Fill in the following information:
  - **IENSectionListener ProgID** – the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is:  
OleServerName.ObjectName.

For the ProgID's of the standard, E-Notebook section listeners, see “Managing the Standard Section Listeners” on page 654.

7. If the section listener has properties to configure, click the Custom Properties button.

The section listener properties dialog appears, and you are prompted to configure the custom properties.

8. Click OK to dismiss the section listener properties properties dialog.

The dialog box closes and the form refreshes.

## Viewing and Editing the Properties of a Section Listener

You can view and edit the properties that are associated with a section listener.

To view and edit the properties of a section listener:

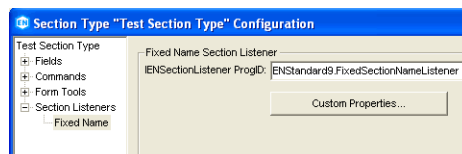
1. Right-click the section type in the Collection Tree.

The collection menu appears.

2. Select Section Type Configuration from the menu.

The Section Type Configuration dialog appears.

3. If necessary, click the plus sign next to Section Listeners to expand the list and view the section listeners are associated with the section type. Click the section listener whose properties you wish to view or change.



The ProgID's and license key information appears to the right. You may edit this information if you wish.

4. Click the Custom Properties button.

If the section listener has custom properties associated with it, the section listener properties dialog appears.

Note that if the section listener has no custom properties, a message to that effect is presented, and no properties dialog is displayed.

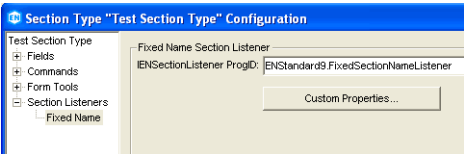
- 5. Edit the custom properties if desired, and click OK to close the properties dialog.
  - 6. To close the section type configuration dialog, click the close button in the upper right corner.
- The dialog closes. The form refreshes.

Removing a Section Listener from a Section Type

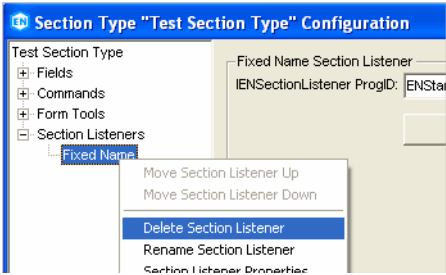
If you no longer want a particular section listener to be associated with a section type, you can remove it from the section type.

To remove a section listener from a section type:

- 1. Right-click the section type in the Collection Tree.
- The collection menu appears.
- 2. Select Section Type Configuration from the menu.
- The Section Type Configuration dialog appears.
- 3. If necessary, click the plus sign next to Section Listeners to expand the list and view the section listeners are associated with the section type.



- 4. Right-click the section listener you wish to remove and select Delete Section Listener from the menu that appears.



A message appears, asking you to confirm that you wish to delete the section listener.

- 5. Click Yes.
- The section listener is removed from the section type.

Managing the Standard Section Listeners

provides a number of standard Section Listeners, which you may add to section types.

Managing the Required Section Listener

The Required Section Listener prevents users from deleting sections of this type. For example, you may have a Results section that is mandatory with each Experiment/Page.

Section Listener	IENSectionListener ProgID
Required Section	ENStandard9.RequiredSection-Listener

Managing the Fixed Section Name Listener

The Fixed Section Name Listener prevents users from renaming sections of this type. For example,

you may have a procedure section associated with each experiment/page, and you may always want the section to bear the name “Procedure”.

Section Listener	IENSectionListener	ProgID
------------------	--------------------	--------

Fixed Section Name	ENStandard9.FixedSection-	NameListener
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## Managing the Audit Section Listener

The Audit Section Listener prevents a user from deleting a section of this type if it has been modified since it was created.

Section Listener	IENSectionListener	ProgID
------------------	--------------------	--------

Audit	ENStandard9.AuditSectionListener	
-------	----------------------------------	--

## Configuring a Form

Each section type in E-Notebook has a single form associated with it. The form is what users see when they create sections of this type.

You can configure a form to display data in the most effective way. Boxes are the building blocks of forms. You can add boxes to forms, delete them from forms, and manipulate their sizes and properties. You insert the fields you wish to appear in a form into the boxes.

**NOTE:** Prior to configuring the form, the section type must contain the fields that are to be added to the form.

## Configuring a New Form

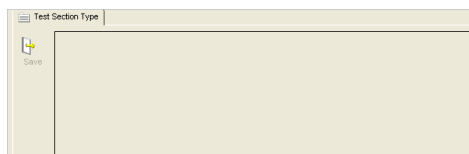
When you create a new section type, you must configure its form. Initially, the form has a single, root box. You configure the form by adding additional boxes, and then inserting fields into those boxes.

The configuration created in the steps below is an example. There are many ways in which boxes may be organized within the form.

To configure a new form,

1. Right-click within the root box.

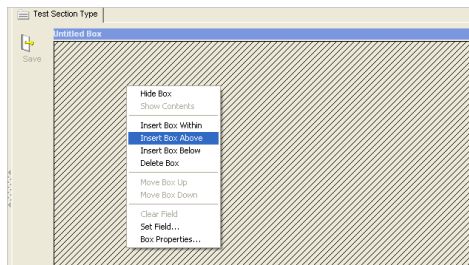
A menu appears.



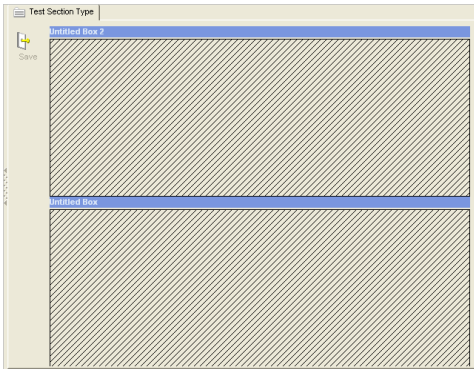
2. Select Insert Box Within.

A box appears within the root box. The hashed lines indicate that there is a box behind the top box.

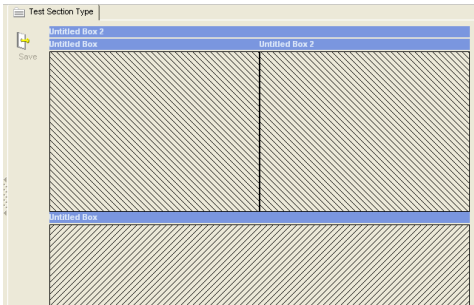
3. Right-click within the inner box, and select Insert Box Above from the menu that appears.



A box appears on top of the box you selected. There are now two boxes, one on top of the other, within the root box, as shown below:



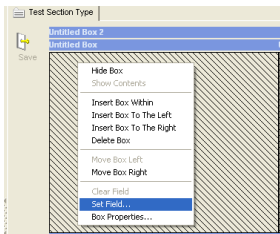
A box appears to the right of the box you selected, as shown below.



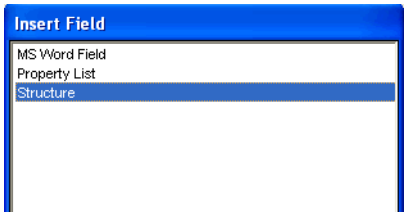
### Setting the Fields in Boxes

To set the field within a box,

1. Right-click within the box.  
A menu appears.
2. Choose Set Field.



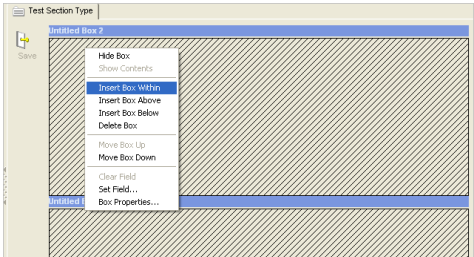
A dialog box appears, listing the fields that you have added to the section type.



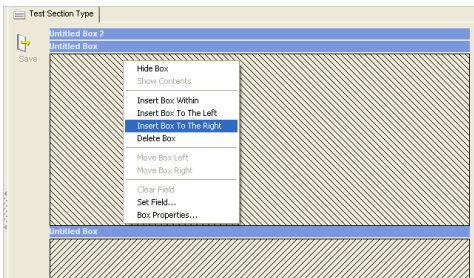
3. Click the field you wish to insert into the box, and click Insert.

The next step you take depends upon the form layout you seek. In this example, we will configure the form so that there are two fields in a row on top of another field, for a total of three fields in the form.

4. Right-click within the top box, and select Insert Box Within.

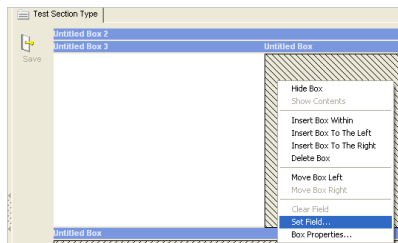


5. Right-click within the new box, and select Insert Box to the Right.





The field appears in the box. Any edits you make to the field will appear in E-Notebook when a user creates a section of this type.



- Repeat steps 1 through 3 for the other boxes. Once a field has been set in a box, you may access the box menu by right-clicking the frame of the box.

**NOTE:** The orientation of a box is determined by the orientation of its container. For example, say that **Insert Box Above** and **Insert Box Below** are menu options for Box X. Then, you insert Box Y within Box X, by using the **Insert Box Within** command. The menu options for Box Y will include **Insert Box to the Right** and **Insert Box to the Left**. If you inserted Box Z into Box Y, the menu options for Box Z would include **Insert Box Above** and **Insert Box Below**. By default, the orientation of the container box is opposite the orientation of the contained box.

## Reconfiguring an Existing Form

In some cases, you may want to reconfigure a particular form, adding new fields, removing existing fields, or changing the layout of the fields in the form. For audit reasons, it is not possible to remove a field from a form if that form is in use.

## Adding a Field to an Existing Form

- Click the section type of interest in the Collection Tree.

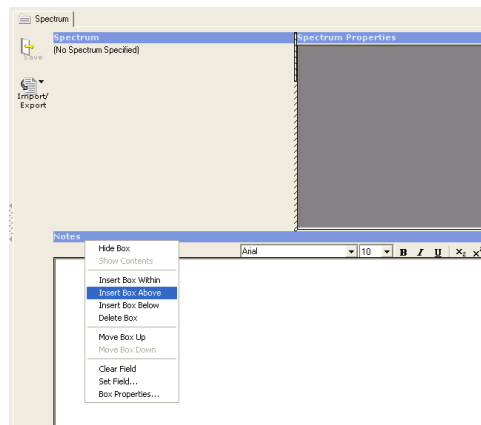
The form for the section type appears in the right frame.

- Right-click the frame of the box that is to be adjacent to the new box you are adding.

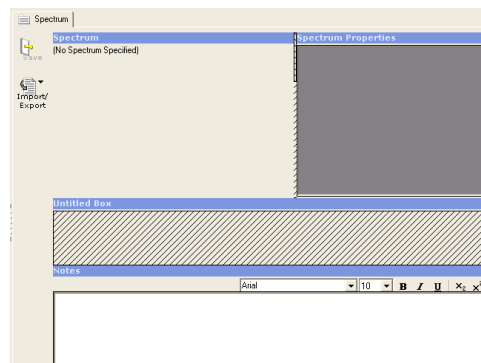
The box menu appears.

- Select a menu option to add a new box to the form.

In this example we are selecting **Insert Box Above** to add a box above the Metadata Properties box.

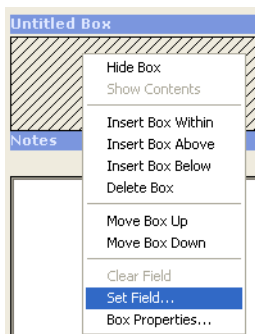


The new box appears in the form:





- Right-click within the new box, and select Set Field from the menu that appears.

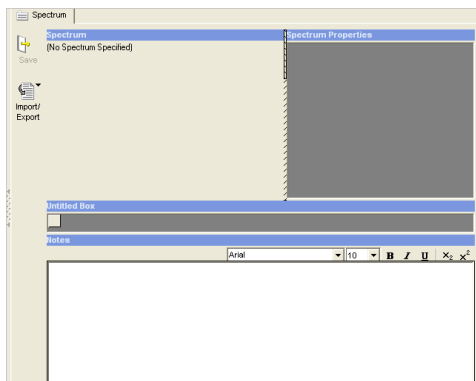


The Insert Field dialog appears, listing the Fields that have been added to the section type.



- Select the field to be insert, and click Insert .

The field appears in the form. In the example below, a query text field has been inserted.



# Rearranging Boxes in a Form

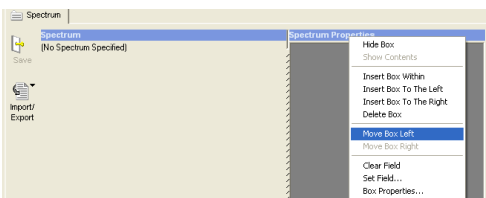
You may rearrange the boxes in a form to change the layout of the form.

- Right-click the frame of the box that you wish to move.

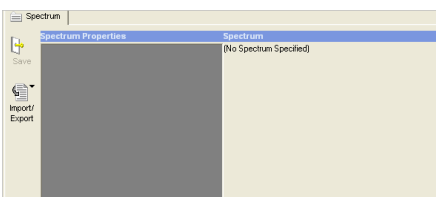
The box menu appears.

- Select one of the options for moving the box.

(Depending upon the orientation the box, either 1) Move Box Left and Move Box Right, or 2) Move Box Up and Move Box Down will appear in the menu). In this example, we are moving a box to the left.



The box is moved according to the selection you made.



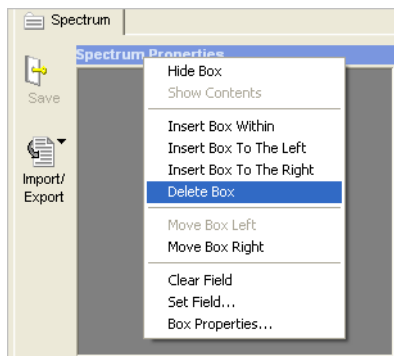
# Deleting a Box from a Form

If you no longer want a particular box to be part of a form, you may delete it. If you delete a box that contains a field, there must be an empty box for the field elsewhere in the form.

To delete a box from a form:

1. Right-click the frame of the box you wish delete.


A menu appears.

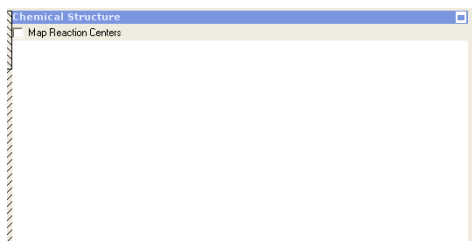


2. Select Delete Box.

The box is deleted from the form. (Note that if the box contained a field, and you had customized the field for this form, you can add the field to another box in the form and your changes to the field will be maintained).

## Showing and Hiding the Max Button for a Box

In a form, each box may have a max button  associated with it. The button appears in the upper right corner of the box. When a user clicks the button, the field expands to fill the entire section display. (Clicking the max button again returns the field to its original size). The field below displays the max button in the upper right corner:



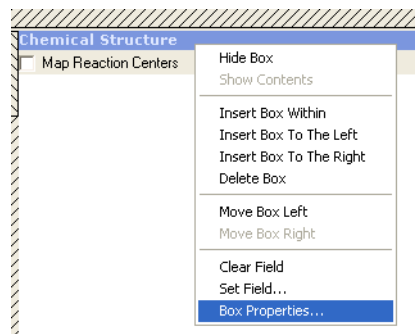
### Hiding the Max Button

To hide the max button for a box,

1. Right-click the frame of the box.

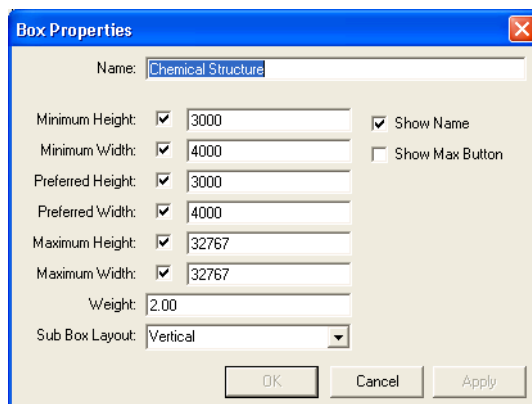
The box menu appears.

2. Select Box Properties.



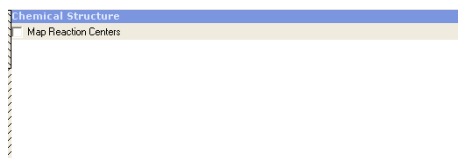
The Box Properties dialog appears.

3. Click the Show Max Button checkbox to clear it.



4. Click OK .

The dialog closes, and the max button is no longer visible in the box.



### Showing the Max Button

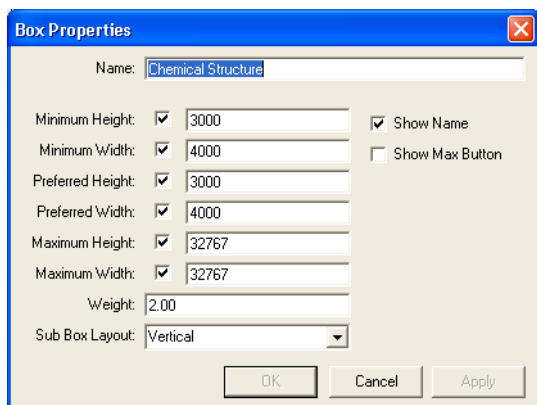
To show the max button for a box:

1. Right-click the frame of the box.  
The box menu appears.
2. Select Box Properties.



The Box Properties dialog appears.

3. Click the Show Max Button checkbox so that a checkmark appears:



4. Click OK .

The dialog closes, and the max button appears.



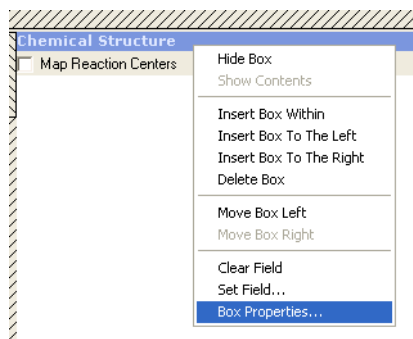
## Showing and Hiding the Name of a Box

In a form, each box has a title bar associated with it. You may choose to either hide of this bar or have it appear above the box in the form:

### Hiding the Box Name

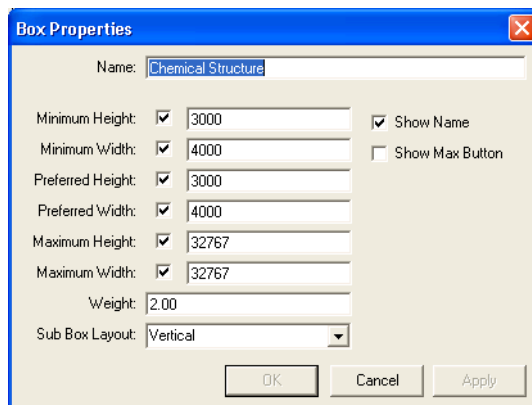
To hide the name of a box,

1. Right-click the frame of the box.  
The box menu appears.
2. Select Box Properties.



The Box Properties dialog appears.

3. Click the Show Name checkbox to clear it.



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4. Click OK .

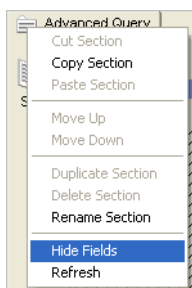
The dialog closes, and the name of the box is no longer visible in the form.



## Showing the Name of a Box

To show the name of a box:

1. Right-click the section menu tool on the tab, and select Hide Fields.

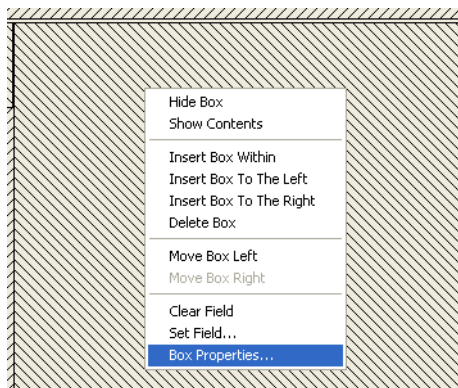


The fields in the form are hidden.

2. Right-click within the box whose name you wish to display in the form.

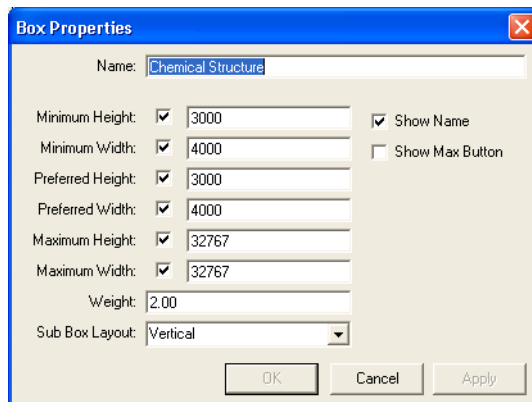
The box menu appears.

3. Select Box Properties.



The Box properties dialog appears.

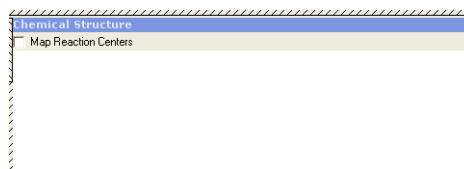
4. Click the Show Name checkbox so that a checkmark appears:



5. If you wish, edit the name for the box.

6. Click OK .

The dialog closes, and the box name appears in the upper left corner of the box.



## Resizing Boxes in a Form

You can change the size of a box to make it appear larger or smaller in a form. You can set the maximum dimensions, minimum dimensions, and proportional size of a box relative to other boxes in the same container.

## Changing the Weight of a Box

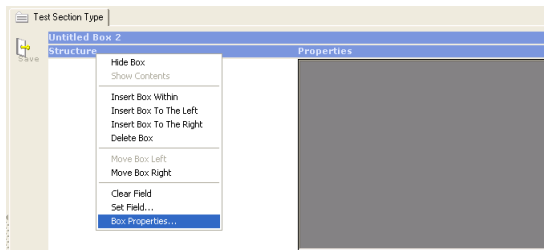
To change the size of a box relative to other boxes in the same container, you may change the weight of the box.

To do this,

1. Right-click the frame of the box whose weight you wish to change. In this example, the weight of the Structure box will change.

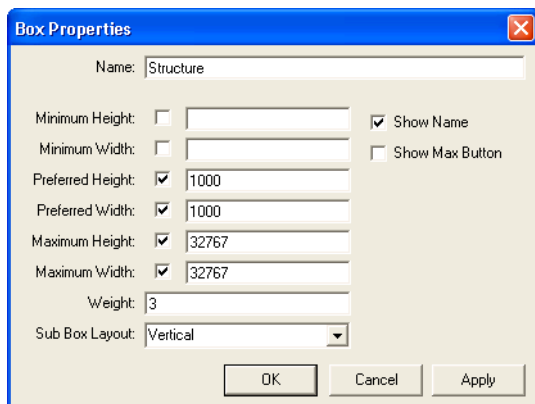
The box menu appears.

2. Select Box Properties.



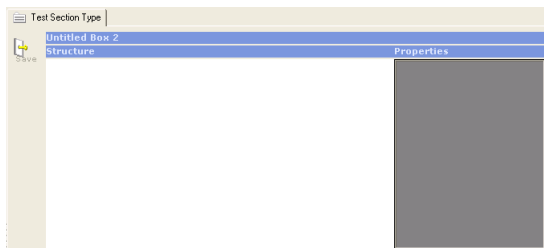
The box properties dialog appears.

3. Change the value of the Weight. In this example, we are changing the value to 3 (three times greater than the default box weight of 1).



4. Click OK

The dialog closes, and the box sizes change to reflect your change.

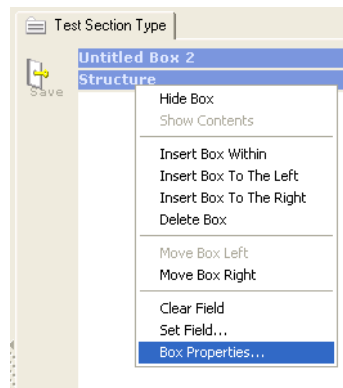


## Changing the Dimensions of a Box Manually

1. Right-click the frame of the box whose size you wish to change.

The box menu appears.

2. Select Box Properties.



The Box Properties dialog appears.

3. Click the checkboxes to apply the options you desire to the box.

The sizes of the boxes will change according to the options you select.

- **Minimum Height and Minimum Width** – The minimum height and width, respectively, to which the box can shrink when the E-Notebook window is resized or the form is further configured in a way that would shrink the box (for example, by adding a box next to it).
- **Preferred Height and Preferred Width** – The starting height and width, respectively, of the box relative to other boxes in the same container. To calculate the actual height of a box within a container, begin with the preferred height of the contained boxes. Then,
  - if the preferred dimensions would leave extra space in the container box, add the extra space in the container to each

contained box according to its Weight relative to the other boxes, ensuring that each box does not exceed its maximum dimensions.

- if the preferred dimensions would cause the contained boxes to overflow the container, subtract space from each box according to its Weight relative to the other contained boxes, ensuring that each box is no smaller than its minimum dimension.
- **Maximum Height and Width** – The maximum height and width, respectively, a box can attain when the E-Notebook window is resized or as the form is further configured in a way that would increase the size of the box (for example, by deleting a box next to it). A scroll bar appears within the box if the field within it requires more space than the maximum dimension allows.

Box dimensions are expressed in twips, with 20 twips equalling one pixel.

**NOTE:** *If you would like a box to simply conform to the sizes of the boxes it contains, you can deselect all of the sizing options for that box.*

## Clearing Fields when Configuring a Form

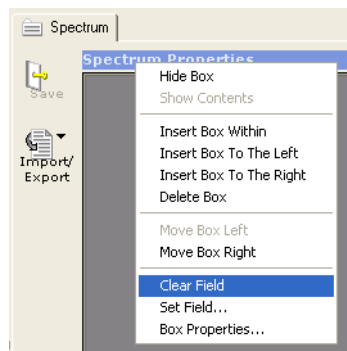
When you are configuring a form, you may remove a field after adding it to the form. It is only possible to clear the field if the form is not yet in use. If the form is in use, the field will move to an empty box. (This prevents the possibility of obscuring data that a user has entered in a form).

To clear a field from a box,

1. Right-click the frame of the box.

The box menu appears.

2. Select Clear Field.



The field is removed from the form.

## Hiding Fields and Boxes when Configuring a Form

When you are configuring a form, hiding fields and boxes makes it easier for you to access box menus.

### Hiding a Box

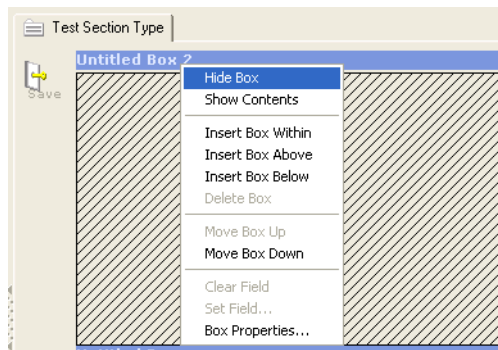
You may wish to hide a box if, for example, you wish to access the box that contains it in a form.

To hide a box,

1. Right-click the frame of the box.

The box menu appears.

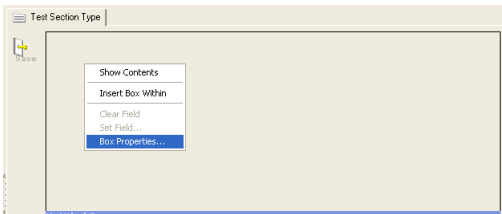
2. Select Hide Box.



The Box is no longer visible in the form, as shown below. (In this case, the root box of the form is visible. The root box does not display the hash marks).



3. To access the box that contains the hidden box, right-click within the hidden box, and select Box Properties .



The Box Properties dialog for the container of the hidden box appears.

### Hiding Fields in a Form

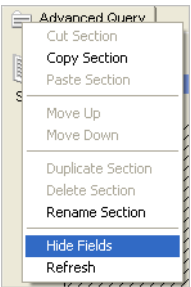
You may wish to hide the fields in a form while you are configuring it, so that it is easier to access the box menus. This may become especially important if you have hidden the frames of the boxes.

To hide the fields in a form:

1. Right-click the section menu icon that appears in the form.

The section menu appears.

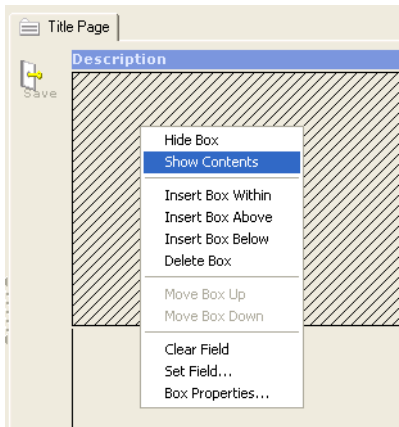
2. Select Hide Fields.



The fields in the form are hidden.

3. To see the field in a particular box again, right-click within the box, and select Show Contents from the menu that appears.

This menu option will only appear if 1) the box contains a field or 2) a contained box is hidden.

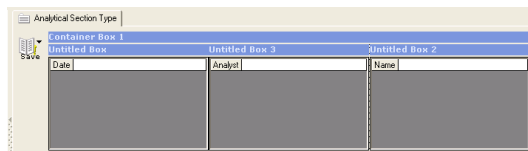


### Changing Box Orientation

You may wish to change the orientation for a box, so that the stacking of its contained boxes will change from horizontal to vertical, or from vertical to horizontal.

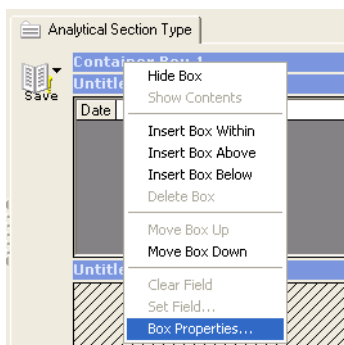
In this example, we will change the orientation of contained boxes from a horizontal arrangement to a vertical arrangement.

In the form we are shown below, there are three, horizontally arranged boxes within a single container box.

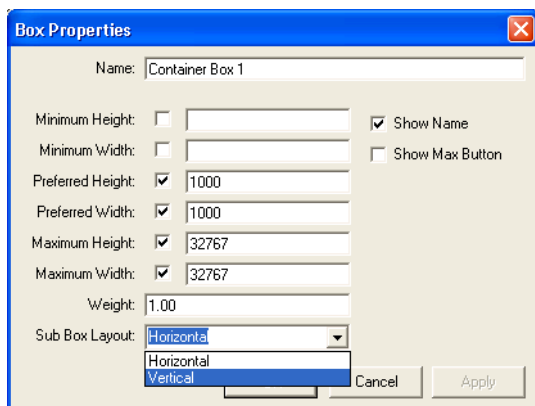


1. Right-click the frame of the box that contains the three boxes (making sure you select the correct box — the one that is directly outside of the three boxes; in this example, “Container Box 1” is selected).

The box menu appears.

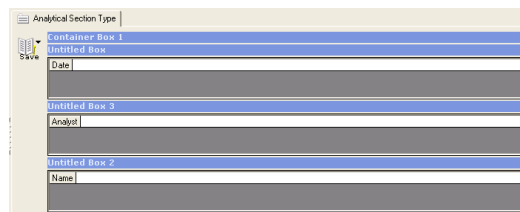


2. Select Box Properties.  
The Box Properties dialog appears.
3. Change the Sub Box Layout to Vertical (i.e., the opposite of the current layout).



4. Click OK.

The Box Properties dialog closes. The three boxes are now arranged vertically, as shown below.



## Managing Export Templates for Section Types

Export templates for section types allow users to print E-Notebook sections and export sections to Microsoft Word. You create export templates with MS Word sections, using tags to refer to E-Notebook fields.

An export template must be set up for each, new section type you create.

To view the export template:

1. Right-click the section type in the Collection Tree.

A menu appears.

2. Select Show, and then Export Templates.



If the section type has an export template, the template appears in the right frame. If not, the right frame is blank, and you must create a new template.

See the following topics:

- “Creating the Export Template for a Section Type” on page 666.
- “Editing the Export Template for a Section Type” on page 666



## Creating the Export Template for a Section Type

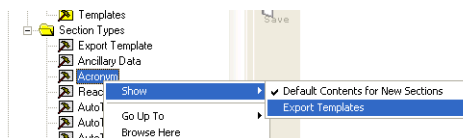
Export templates allow users to print E-Notebook sections and to export sections to Microsoft Word.

To create an export template:

1. Right-click the section type in the Collection Tree.

A menu appears.

2. Select Show, and then Export Templates.

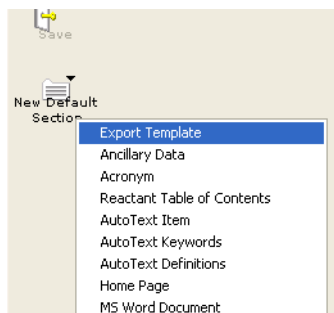


The right frame is blank if there is no export template associated with the section type. (For information about configuring an existing export template, see “Editing the Export Template for a Section Type” on page 666).

3. Click the New Default Section button in the right frame.



A menu appears, listing all of the E-Notebook section types.



4. Select Export Template.

A new export template appears.

See “Editing the Export Template for a Section Type” on page 666 for instructions on setting up the template.

## Editing the Export Template for a Section Type

This topic provides instructions for setting up or modifying an export template.

To do this:

1. Right-click the section type in the Collection Tree.

A menu appears.

2. Select Show, and then Export Templates.



The export template appears in the right frame. If no template appears, you must first [create the template](#).

You can then edit the template in one of two ways:

- You can edit it within E-Notebook, using the MS Word tools that E-Notebook provides.
- You can export it to MS Word and edit it within MS Word to make use of the full, MS Word feature set. You can then import it back into E-Notebook. See Working with MS Word Documents in the User Guide if you would like more information about how to import and export MS Word documents)

The body of each export template contains tags that mark the locations for the content within the exported section. The format of a tag consists of a left bracket, the name of a field, and a right bracket. For example, if there is a field named “Reaction” it will replace the first instance of “<Reaction>” in the export template.

Each field type determines how it will replace the tag with its data (within the IENFieldCtl\_Export method).

When a user prints a section, the printed header and footer are pulled from the *collection type* export template that corresponds to the user's region. See “Creating and Editing the Export Templates for a Collection Type” on page 765 for information about headers, footers, and setting up templates for users from different geographical regions.

## Section Metadata Tags

Within the contents of the section type export template, the following tags can be inserted. Each of these tags will be replaced by the corresponding information at the time of export or printout.

Tag	Replacement
<sectionName>	The name of the section.
<sectionIndex>	The numerical position of the section within its containing set of sections.
<sectionCount>	The number of sections that are contained within the set of sections.

## Standard Field Types

This section describes how each of the standard add-in field types replaces the tags in an export document with the field type.

- **Active Document field type** – The Active Document field type replaces the export tag with the body of the Word document.
- **ChemDraw Structure field type** – The ChemDraw Structure field type substitutes a ChemDraw OLE object into the Microsoft Word document. As a result, the ChemDraw application is required to render the OLE object, either for display on the client machine, or for printing.
- **Collection Query field type** – The Collection Query field type replaces the export tag with tab-separated descriptions of the selected collection query options.
- **Collection Type Query field type** – The Collection Type Query field type replaces the export tag with tab-separated description of the collection type query.
- **Database Table field type** – Normally, the Database Table field type creates a Word table to replace the contents of the tag. Each column of the Database Table data corresponds to a column in the Word table; each row of the Database Table data corresponds to a row in the Word table. If the tag appears within a Word table, then, instead of creating a new Word table, the Word table that contains the tag is used to contain the Database Table data. Any formatting within the Word table is applied to the content.
- **Property List field type** – In the export template, the tag for the Property List field type should appear in an MS Word table; then, the Word table that contains the tag is used to contain the data. The first column of the table contains the names of the properties, and the second column contains the values of the properties. Any formatting within the Word table is applied to the content.
- **Property Query field type** – Normally, the Property List field type creates a Word table to replace the contents of the tag. The first column of the data corresponds to the property name, and the second column corresponds to the value. a column in the Word table; each row of the data corresponds to a row in the Word table. If the tag appears within a Word table, then, instead of creating a new Word table, the Word table that contains the tag is used to contain the data. Any formatting within the Word table is applied to the content.

- **Query Text field type** – The Query Text field type replaces the tag with the text stored in the section.
- **Search Location field type** – The field marker within the template is either deleted (if the “Search In” check box is unchecked) or replaced by the name of the selected collection (if the “Search In” check box is checked)
- **Spectrum field type** – The Spectrum field type substitutes an image of the spectrum for the tag.
- **State Query field type** – The Collection Type Query field type replaces the export tag with tab-separated description of the collection type query.
- **Stored Document field type** – The Stored Document field type replaces the export tag with tab-separated description of the stored document: its type and its size in bytes.
- **Styled Text field type** – The Styled Text field type replaces the tag with the formatted text stored in the section.
- **Subsection field type** – The Subsection field type replaces the tag with the contents of a Word document that is created by exporting all of the sections contained in the subsection.
- **Table field type** – Normally, the Table field type creates a Word table to replace the contents of the tag. Each column of the Table data corresponds to a column in the Word table; each row of the Table data corresponds to a row in the Word table. If the tag appears within a Word table, then, instead of creating a new

Word table, the Word table that contains the tag is used to contain the Table data. Any formatting within the Word table is applied to the content.

- **Table Query field type** – creates a Word table to replace the contents of the tag. Each column of the data corresponds to a column in the Word table; each row of the data corresponds to a row in the Word table. If the tag appears within a Word table, then, instead of creating a new Word table, the Word table that contains the tag is used to contain the data. Any formatting within the Word table is applied to the content.
- **URL Display field type** – The URL Display field type replaces the export tag with the contents of the web page specified in the section.

## Page Breaks

By default, if a user prints a range of sections in a collection, the sections will print contiguously, without page breaks. You may however, insert a page break at the end of the section type export template if you do not want sections to print on the same page. To add a page break before a section, check the “Page Break Before” paragraph setting for the first paragraph of the corresponding export template. This is an MS Word setting. If this paragraph setting is not checked, then the sections will appear continuously on the word page.

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# Chapter 36: Managing Rendering in E-Notebook

This portion of the guide describes the configuration of printing and exporting in E-Notebook. Printing and Exporting operations are configured and executed in similar ways. Because of these similarities, the term “Render” is used throughout to refer to either Printing or Exporting.

An E-Notebook system can be configured to render the contents of a collection in several contexts, such as in response to a menu command, as part of a transition, or the operation of a form tool. Different rendering add-ins support different workflows. For each use of a rendering add-in, the add-in is configured with one or more rendering templates that determine how the information in a collection or section is laid out within the Microsoft Word document. For add-ins that render collections, templates are created that specify paper sizes, styles, headers, footers and the layout of data for each type of section to be rendered.

During the rendering operation for collections, the rendering add-in instantiates an instance of Microsoft Word and uses a template associated with the rendering add-in to lay out the document. Each section in the collection whose type has a rendering template associated with the rendering add-in is then incorporated into the new document. For each field in each section, a tag is located in the rendering template that contains the name of the field associated with that section cell surrounded by brackets, such as <FieldName>. This tag is replaced by a rendition of the field's data. Once the document is rendered, it is either printed or saved to a file, depending on the behavior of the rendering add-in

## Configuring a Rendering Template

Many rendering operations require a template in the form of a Microsoft Word document that describes the layout of data to be rendered. When a rendering add-in requires a rendering template as part of its configuration, that rendering template can reside in one of two places. It can either be associated directly with the rendering add-in or it can be located in users' user configuration folders and referenced by name from the add-in.

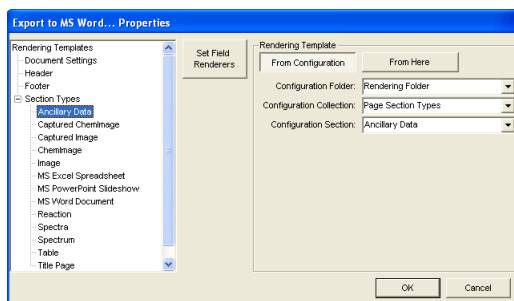
For rendering templates located in users' user configuration folders, the rendering templates must be stored in a Microsoft Word field in a section that is contained in a configuration collection. This configuration collection is contained within a configuration folder. The configuration folder and the configuration collection may be referenced within the user configuration folder (if you want several users to have the same rendering configuration) or contained directly in the configuration folder (if you want users to be able to customize their rendering templates).

To associate a rendering template for a section type with an Export to MS Word command:

1. Right-click the collection type that contains the section for which the rendering template has to be associated.
2. Select **Collection Type Configuration** from the menu that appears.

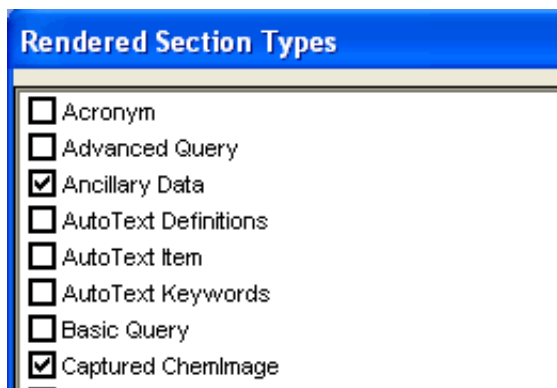
The Collection Type Configuration dialog appears.

- Click the plus sign next to **Commands** to view the commands that are associated with this collection type. In this example, click the command for **Export to MS Word**.
- Click the **Custom Properties** button.

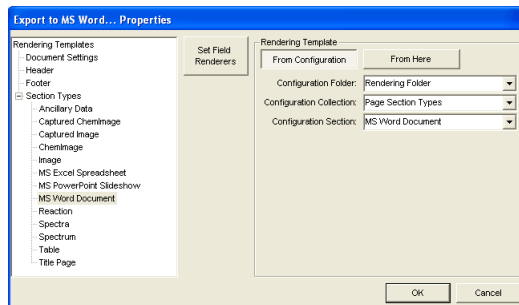


The command properties dialog appears. This example shows the properties dialog for the **Export to MS Word** command, which is one of the standard E-Notebook commands.

- Add the section type for which the rendering template has to be associated. For this,
  - Click the **New Section** button to add section types. A dialog appears displaying the list of section types and checkboxes before their names as:



- Checkmark the boxes to select the section types and click **OK** to close the dialog.
- Click the section type, for **MS Word** document in this case, and then the **From Configuration** button in the dialog.
  - Select the properties as shown:



In this example, the rendering template is located in the each user's **User Configuration Folder** within a folder named "Rendering Folder" that contains a collection named "Page Section Types".

- Click **OK** to close the properties dialog.
- To close the **Collection Type Configuration** dialog, click the close button in the upper right corner.

The dialog closes and your changes are saved.

Similarly, you can configure the rendering templates for other sections and with other commands.

## Designing a Rendering Template

Export templates allow users to print and export from E-Notebook. You can insert various tags in the export templates to pull different types of information into a rendition.

## Rendering Tags

The following tags can be inserted into headers, footers and section rendering templates and replaced with the corresponding data

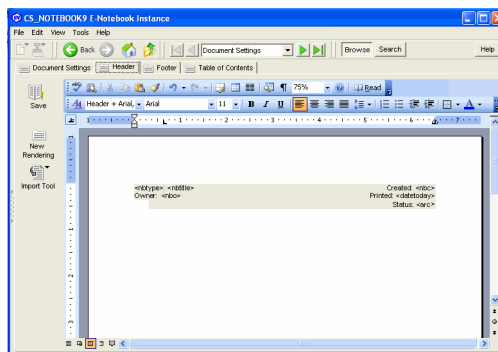
Tag	Replacement
<collectionStatus>	The state of the collection. (Note that if you are using the Final Print Transition Listener, the state will print as the initial state of the transition, and not as the target state. In this specific case, if you would like the name of the target state to print, simply type the text name of the state into the header or footer.)
<dateCreated>	The timestamp of creation of the collection
<dateModified>	The timestamp of last modification
<dateToday>	The timestamp of the creation of the export document or printout
<collectionOwner>	The name of the owner of the collection
<collectionName>	The name of the collection
<collectionType>	The type of the collection

## Templates for Headers and Footers

Headers and Footers are described using templates that are separate from the document settings template used to implement page sizes and styles. This allows multi-section Word documents to be included in rendered documents and the headers and footers to be included in all sections of the rendered documents.

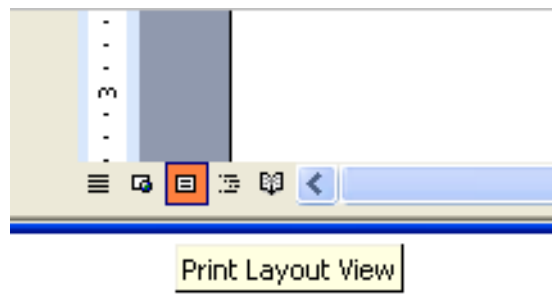
The header and footer is printed on every page when a user prints the collection or a portion of the collection. The header and footer of a collection type export template can contain standard replacement tags above.

The Rendering Template for a header looks as shown below:



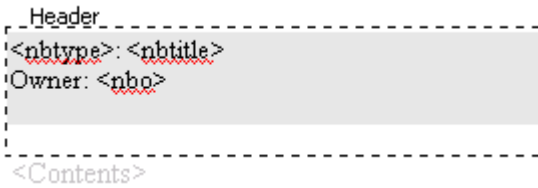
To edit this data:

1. While viewing the export template in E-Notebook, click the print layout view button in the lower left corner of the MS Word field. It is the third button in the row.



The export template appears in print layout view, and the header is visible

2. Double-click the header or footer.

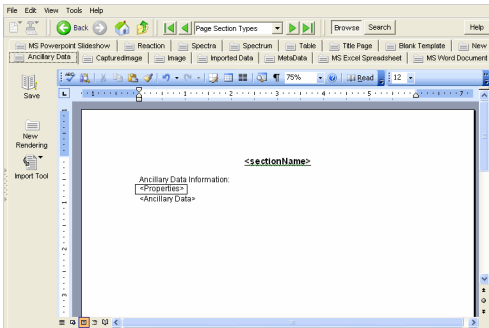


## Section Metadata Tags

Within the contents of a section type export template, the following tags can be inserted. Each of these tags will be replaced by the corresponding information at the time of export or printout.

Tag	Replacement
<sectionName>	The name of the section
<sectionIndex>	The numerical position of the section within its containing set of sections
<sectionCount>	The number of sections that are contained within the set of sections

The Rendering Template for an Ancillary Data Section looks as shown below:



## Managing the MS Word Section Renderers

The word sections renderers can be associated with commands (as a command listener) or transitions (as a transition listener) to modify the behavior of rendering commands and transitions. If more than one Word section renderer is associated with a rendering operation, then the Word section renderers insert their contents in the order they are associated with the rendering operation.

For example, a transition type contains three transition listeners in the following order: PrintTListener, Full History Renderer and Fixed Text After Renderer. In this case, the document produced by the PrintTListener will contain all of the sections to be printed, followed by the full history of the collection being printed, followed by the fixed text that is associated with the Fixed Text After Renderer.

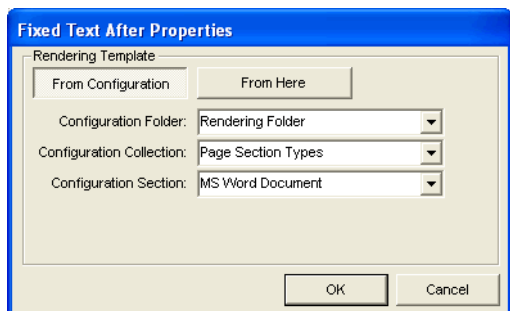
## Managing the Fixed Text After Word Renderer

The Fixed Text After Word Renderer renders some fixed text at the end of a collection when rendering the collection. This renderer is configured with a word document whose contents are inserted into the main story of the rendered output after all of the sections that are rendered as part of a print or export operation. For example, the rendered document might contain a signature block.

Word Renderer	Word Renderer ProgID
---------------	-------------------------

Fixed Text After	ENRenderWord9.Fixed- TextAfterRenderer
------------------	---

Select the custom properties as shown below:



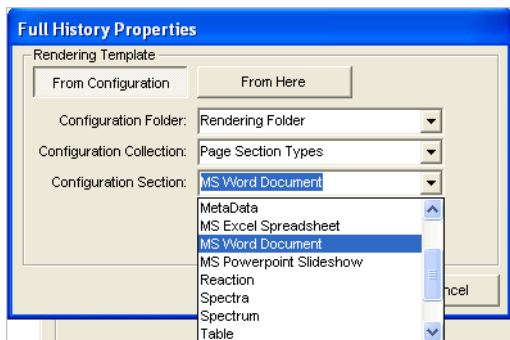
## Managing the Full History Word Renderer

The Full History Word renderer may be associated with a collection type. This renderer inserts the full collection history of a collection after all of the sections that are rendered as part of a print or export operation.

### Word Renderer    Word Renderer ProgID

Full History	ENRenderWord9.FullHistoryRenderer
--------------	-----------------------------------

Select the custom properties as shown below:



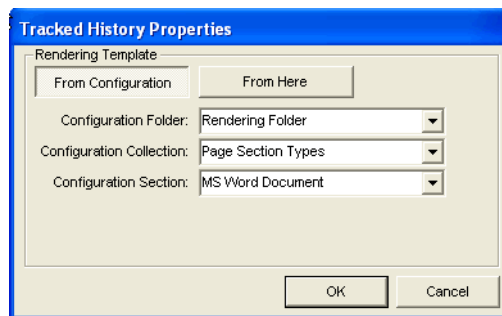
## Managing the Tracked History Word Renderer

The Tracked History renderer is configured with a word document that may contain other text and the tag <History> which indicates where the history is to be inserted. If a collection to be rendered has visual display of changes turned on, then this renderer inserts the collection history of the collection since visual display of changes is turned on

### Word Renderer    Word Renderer ProgID

Tracked History	ENRenderWord9.TrackedHistoryRenderer
-----------------	--------------------------------------

Select the custom properties as shown below:



## Managing the Standard Field Renderers

Rendering of section cell data can be overridden by a Field Renderer that is associated with a particular section type in a particular add-in command.

## Managing the Fixed Table Field Renderer

The Fixed Table Renderer renders the contents of a table according to the tags in a Word table. When this renderer is associated with a table field, the columns in the table are positioned using tags that



appear in the second row of a word table. The tags are of the form <FieldName><PropertyName>.

Field Renderer	Field Renderer ProgID
Fixed Table	ENReaction9.Fixed- TableRenderer

The renderer has no custom properties associated with it.

### Managing the NonBlank Property Field Renderer

The NonBlank Property Renderer renders the name and value of a property if the property is not blank. When this renderer is associated with a property list field, the label and the data are only printed for properties that do not have blank values. The label is printed with a Bold typeface.

Field Renderer	Field Renderer ProgID
NonBlank Property	ENReaction9.NonBlank- PropertyRenderer

The renderer has no custom properties associated with it.

### Managing the One Property Value Field Renderer

The One Property Value Field Renderer renders the value of a single property according to the tags in a Word table. When this renderer is associated with a property list field, the data for one property in the property list is positioned using tags that

appear in the Word template. The tags are of the form <FieldName><PropertyName>.

Field Renderer	Field Renderer ProgID
One Property Value	ENReaction9.OneProperty- ValueRenderer

The renderer has no custom properties associated with it.

### Managing the One Table Value Field Renderer

The One table Value renderer renders the value of a single table cell according to the tags in a Word table. When this renderer is associated with a table field, the data for one property in the first row of the table is positioned using tags that appear in the Word template. The tags are of the form <Field-Name><PropertyName>.

Field Renderer	Field Renderer ProgID
One Table Value	ENReaction9.OneTable- ValueRenderer

The renderer has no custom properties associated with it.

Managing the Property Value Field Renderer  
The Property Value Field renderer renders the values of all the properties in a property list without their corresponding names. When this renderer is associated with a property list field, the data for each property in the property list is rendered with-

out its label. This is typically used for property lists that have only one property.

The renderer has no custom properties associated with it.

<b>Field Renderer</b>	<b>Field Renderer ProgID</b>
-----------------------	----------------------------------

Property Value	ENReaction9.PropertyValueRenderer
----------------	-----------------------------------



# Chapter 37: Managing Commands

Commands can be associated with a collection types and sections types to render content in: exporting to MS Word, PDF, or printing. The results of renderings can be stored in files, printed on paper, or stored in databases. For example, users may export a collection to MS Word or PDF and save it at some location outside E-Notebook.

## Managing Collection Commands

You can associate commands with a collection type to render the contents of collections in various formats i.e. MS Word or PDF. The results of renderings can be stored in files, printed on paper, or stored in databases. For example, users may export a collection to MS Word or PDF and save it at some location outside E-Notebook.

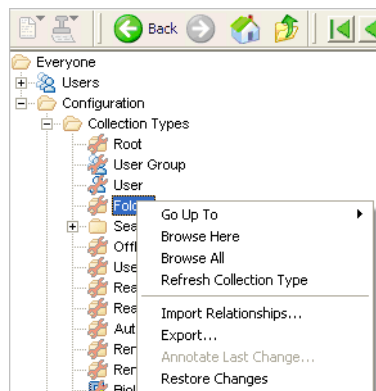
This section describes how to set up an E-Notebook application to render the contents of collection in a specific format. E-Notebook can be configured to render the contents of a collection in several contexts, such as in response to a menu command or as part of a transition.

## Adding a Command to a Collection Type

You can associate commands with a collection type if you wish the users to allow to render the contents of collections in specific formats i.e. MS Word or PDF.

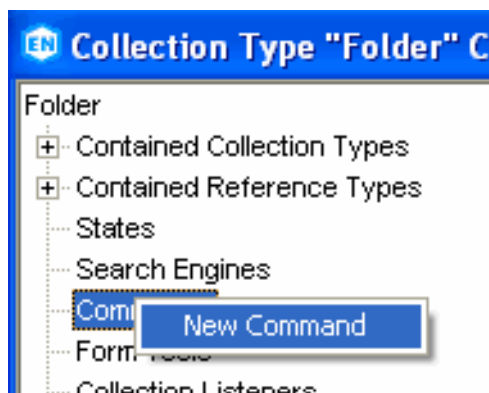
To add commands to a collection type:

1. Right-click the collection type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.

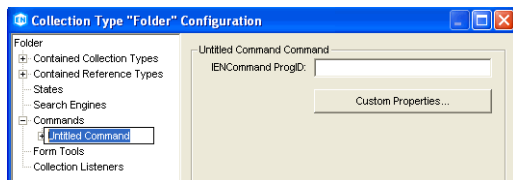


The Collection Type Configuration dialog appears.

2. Right-click **Commands** and select **New Command** from the menu that appears:



A new command appears and you are prompted to rename it.



3. Type in a name for the command.
4. Enter the IENCommandProgID for the Command you wish to add.
5. To close the Collection Type Configuration dialog, click the close button in the upper right corner.

The dialog closes.

6. To add another command to the Collection Type, repeat steps 2 and 3.

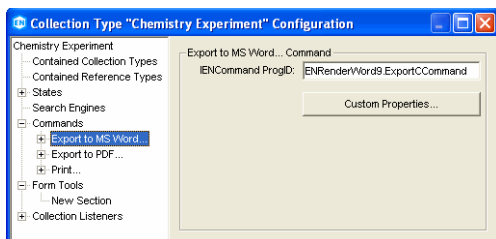
## Viewing and Editing the Properties of a Collection Command

You can view and edit the custom properties that may be associated with a collection command.

To do this:

1. Right-click the collection type that contains the command in the Collection Tree, and select Collection Type Configuration from the menu that appears.

The Collection Type Configuration dialog appears.



2. If necessary, click the plus sign next to Commands to view the commands that are associated with this collection type. Click the command whose properties you wish to view or edit.

3. Click the Custom Properties button.

The command properties dialog appears. This example shows the properties dialog for the Export to MS Word command, which is one of the standard E-Notebook commands.

4. Edit the properties, if you wish. For example, you may wish to add section types to be rendered. For this,
  - a. Click the Set Rendered Section Types button to add section types. A dialog appears displaying the list of section types and checkboxes before their names.
  - b. Check the boxes to select the section types and click OK to close the dialog.

5. Click OK to close the properties dialog.

6. To close the Collection Type Configuration dialog, click the close button in the upper right corner.

The dialog closes and your changes are saved.

## Removing a Command from a Collection Type

If you no longer want a particular command to be associated with a collection type, you can remove it from the collection type.

To do this:

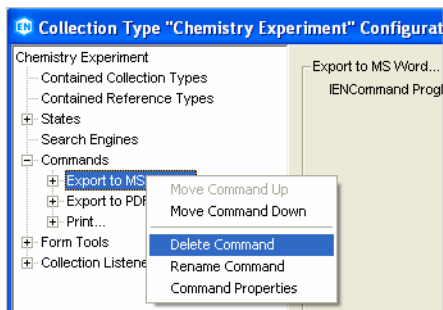
1. Right-click the collection type that contains the command in the Collection Tree, and select Collection Type Configuration from the menu that appears.

The Collection Type Configuration dialog appears.

2. If necessary, click the plus sign next to Commands to view the commands that are associated with this collection type.

3. Right-click the command you wish to remove from the collection type.

A menu appears.



4. Select Delete Command.

A message appears, asking you to confirm that you wish to delete the command.

5. Click Yes.

The command is removed from the collection type.

6. To close the Collection Type Configuration dialog, click the close button in the upper right corner.

The dialog closes.

## Managing the Standard Collection Commands

There are some standard commands that you may associate with collection types in E-Notebook. The commands are used to render the contents of collections in various formats i.e. MS Word or PDF and the results of these renderings can be stored in files, printed on paper, or stored in databases.

Printing and Exporting operations are configured and executed in similar ways. Because of these similarities, the term “Render” is used throughout here

when it refers to either Printing or Exporting, depending on a specific configuration.

## Managing the Export to MS Word Collection Command

You can associate the Export to MS Word command to allow users to render or export the contents of a collection to an MS Word document type thereby storing the results of these renderings in files or databases.

For example, users may wish to export a collection to MS Word and save it at some location outside E-Notebook.

Command	Command ProgID
---------	----------------

Export to MS Word	ENRenderWord9.ExportC Command
-------------------	----------------------------------

## Managing the Export to PDF Collection Command

E-Notebook can be configured to allow users to render the contents of a collection to PDF document which is managed by associating Export to PDF Collection Command with that collection type.

For example, users may want to export a collection and save it in PDF format at some location outside E-Notebook.

Command	Command ProgID
---------	----------------

Export to PDF	ENRenderWord9.Export- PDFCCommand
---------------	--------------------------------------

# Managing the Print Collection Command

If the Print Collection Command is associated with a collection type, users can print collections of that type.

Command	Command ProgID
Print Collection	ENRenderWord9.PrintC-Command

## Managing Section Commands

You can associate commands with a section type to render the contents of sections to MS Word, or to print sections.

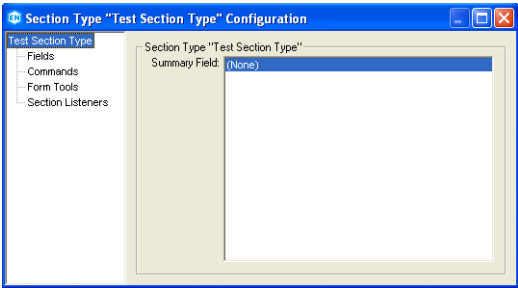
This section describes how to set up an E-Notebook application to render the contents of a section.

### Adding Commands to a Section Type

You can associate commands with a section type if you wish the users to allow to render the contents, either printing or exporting to MS Word.

To add commands to a section type:

1. Right-click the section type in the Collection Tree, and select **Section Type Configuration** from the menu that appears.



The Section Type Configuration dialog appears.

2. Right-click **Commands** and select **New Command** from the menu that appears:  
A new command appears and you are prompted to rename it.
3. Type in a name for the command.
4. Enter the IENCommandProgID for the Command you wish to add.
5. To close the Section Type Configuration dialog, click the close button in the upper right corner.
6. The dialog closes.

To add another command to the Section Type, repeat steps 2 and 3.

## Viewing and Editing the Properties of a Section Command

You can view and edit the custom properties that may be associated with a section command.

To do this:

1. Right-click the section type that contains the command in the Collection Tree, and select **Section Type Configuration** from the menu that appears.  
The Section Type Configuration dialog appears.
2. If necessary, click the plus sign next to **Commands** to view the commands that are associated with this collection type. Click the command whose properties you wish to view or edit.
3. Click the **Custom Properties** button.
4. Edit the properties, if you wish. For example, you may wish to add section types to be rendered. For this,
  - a. Click the **Set Rendered Section Types** button to add section types. A dialog appears displaying the list of section types and checkboxes before their names.

- b. Check the boxes to select the section types and click OK to close the dialog.
5. Click OK to close the properties dialog.
6. To close the Section Type Configuration dialog, click the close button in the upper right corner.

The dialog closes and your changes are saved.

## Removing a Command from a Section Type

If you no longer want a particular command to be associated with a section type, you can remove it from the section type.

To do this:

1. Right-click the section type that contains the command in the Collection Tree, and select **Section Type Configuration** from the menu that appears.  
The Section Type Configuration dialog appears.
2. If necessary, click the plus sign next to **Commands** to view the commands that are associated with this section type.
3. Right-click the command you wish to remove from the section type.

A menu appears.

4. Select **Delete Command**.

A message appears, asking you to confirm that you wish to delete the command.

5. Click **Yes**.

The command is removed from the section type.

6. To close the Section Type Configuration dialog, click the close button in the upper right corner.

The dialog closes.

## Managing the Standard Section Commands

You can associate some standard commands with section types in E-Notebook. These commands are described here. The commands are used to render the contents of sections in MS Word format and the results of these renderings can be stored in files, printed on paper, or stored in databases.

The term “Render” is used throughout here when it refers to either Printing or Exporting, depending on a specific configuration. This is because of the fact that Printing and Exporting operations are configured and executed in similar ways.

### Managing the Export to MS Word Section Command

Export to MS Word command allows users to render the contents of a section to an MS Word document if it is associated with the section type. Thus, the results of these renderings are stored in files or databases.

For example, users can export a section to MS Word and store at some location outside E-Notebook.

#### Command

#### Command ProgID

Export to MS Word	ENRenderWord9.ExportS Command
-------------------	----------------------------------

### Managing the Print Section Command

If the Print Section command is associated with a section type, users can print the contents of a section of that type by selecting the command from the section menu.



For example, users can export a section to MS Word and store at some location outside E-Notebook.

Command	Command ProgID
Print Section	ENRenderWord9.Print- SCommand

# Chapter 38: Managing Fields

Fields are the basis for the forms in E-Notebook. Each field is based on an add-in field type. E-Notebook provides many standard field types, which you can use to configure your own data forms, searches, and analysis tools. You may also develop addition add-in field types for your own, custom data types.

The field types in E-Notebook span many, diverse types of data. They make it possible to customize E-Notebook to match your workflow and manage your information in the most effective way possible.

The following field types are designed for use in data forms, for data entry, analysis, and display:

<b>Active Document Fields (MS Word fields)</b>	
AutoText Fields	Excel Fields
Chemical Structure Fields	Property List Fields
Context Sensitive Help Fields	Spectrum Fields
Captured Image Fields	Stored Document Fields
Database Table Fields	Subsection Fields
Database Value Fields	Table Fields
PowerPoint Fields	URL Display Fields

Several Fields Types are designed for use exclusively within search forms, to search for data in E-Notebook. They are:

Chemical Query Fields	Property Query Fields
Collection Query Fields	Table Query Fields
Collection Type Query Fields	Unannotated Version Query Fields
Query Text Fields	Search Location Fields
State Query Fields	Join Type Fields

For information about adding custom field types that you have developed, see “Managing the Add-In Configuration” on page 723.

Other topics in this portion of the documentation are:

- [Managing Field Listeners](#) – provides instructions for associating a field listener with a field in order to modify its behavior.
- [Time Settings](#)
- [Managing Units in Property Lists and Tables](#)

## Managing Field Listeners

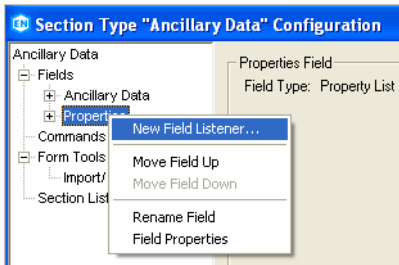
Field listeners modify the behavior of various types of E-Notebook fields. E-Notebook provides many standard field listeners that you can use in your configuration.

You may also develop your own listeners to further customize the behavior of fields in E-Notebook.

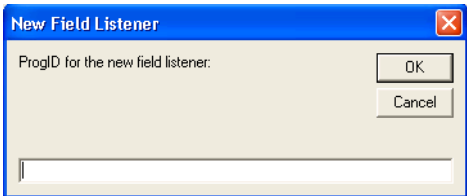
# Adding a Field Listener

To add a field listener to a field,

1. From the Section Type Configuration dialog, right-click the field to which you wish to add the listener.
2. Select **New Field Listener** from the menu that appears.



A dialog appears, prompting you to enter the ProgID for the listener.

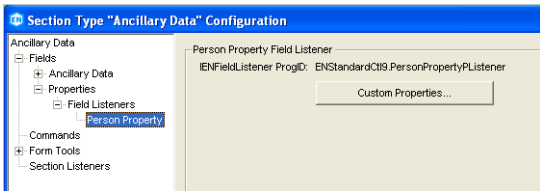


3. Enter the ProgID and click the OK button.  
The listener appears in the left frame and you are prompted to rename it.
4. Enter a name for the listener.

To view and edit the properties of the property list listener:

5. Click the listener.

The Prog ID and properties button appear to the right.



6. Click the Custom Properties button.

If the listener has properties associate with it, they are displayed, and may be edited.

## Managing Generic Field Listeners

The following field listeners are not limited to any particular type of E-Notebook field. (Most E-Notebook field listeners were created for a specific field type).

### Managing the Block User Edit Field Listener

The Block User Edit Field Listener may be used to prevent users from editing a particular field within a section. If this listener is associated with the field, the field will be read-only to users. This listener still enables administrators to edit the field.

Table Listener	IENTableListener ProgID
Block User Edit	ENStandardCtl9.Block- UserEditFELListener

### Managing the Block Edit Cell Field Listener

The Block Edit Cell Field Listener may be used to prevent users from editing a particular field within a section. If this listener is associated with the field, the field will be read=only within that section. field.

Table Listener	IENTableListener ProgID
Block Edit Cell	ENStandardCtl9.BlockEdi tCellFELListener

## Managing the Copy Default Field Listener

The Copy Default Field Listener removes the content of a field when a user copies the collection that contains the field.

Table Listener	IENTableListener ProgID
Copy Default	ENStandardCtl9.CopyDefaultFCLListener

## Managing Data Fields

The following E-Notebook field types are designed for use in data forms, for data entry, analysis, and display:

<a href="#">Active Document Fields</a> (MS Word fields)	
AutoText Fields	PowerPoint Fields
Chemical Structure Fields	Property List Fields
Context Sensitive Help Fields	Spectrum Fields
Captured Image Fields	Stored Document Fields
Database Table Fields	Subsection Fields
Database Value Fields	Table Fields
Excel Fields	URL Display Fields

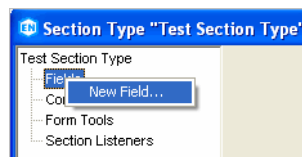
Several fields types are designed for use exclusively within search forms, to search for data in E-Notebook. See “Managing Search Fields” on page 718 for information about these fields.

## Managing Active Document Fields

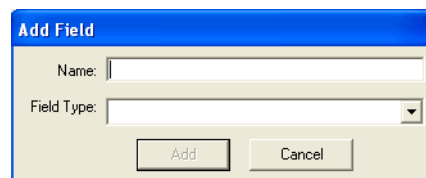
Active Document Fields allow users to view and edit MS Word documents within E-Notebook sections. If you associate the Active Document Form Tool with an active document field, users can import MS Word documents from external sources, or export MS Word documents and edit them in MS Word.

To add an Active Document field:

1. In the Collection Tree, right-click the section type to which you wish to add the property list.
2. Select Section Type Configuration from the menu that appears.  
The Section Type Configuration dialog appears.
3. Right-click Fields, and select New Field.



The Add Field dialog appears.



4. Enter a name for the field and select Active Document from the drop-down list of field types.
5. Click the Add button.

The new field appears in the list of fields.

6. In order for users to be able to import and export the MS Word documents, you must associate the [Active Document Form Tool](#) with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

### Managing Active Document Field Listeners

An Active Document Field Listener modifies the behavior of an MS Word field in E-Notebook. E-Notebook provides an active document listener that prevents users from adding hyperlinks to external URLs. See “Managing the Prevent External Link Active Document Field Listener” on page 686.

You may also develop your own Active Document Field Listeners to further customize the behavior of active document fields in E-Notebook.

See Managing Field Listeners for instructions on associating a field listener with a field.

### Managing the Prevent External Link Active Document Field Listener

The Prevent External Link Active Document Field Listener may be associated with active document fields to prevent users from adding hyperlinks to external URL's. If links are present in the field, they will be stripped from the document when the user browses away.

Active Document Listener	IENActiveDocListener ProgID
Prevent External Link	ENStandardCtl9.RequireENURLDListener

### Managing the Extract Links Document Listener

The Extract Links Document Listener may be associated with active document (MS Word) fields to extract the links from the Word document into a property list.

Active Document Listener	IENActiveDocListener ProgID
Extract Links	ENStandardCtl9.ExtractLinksDListener

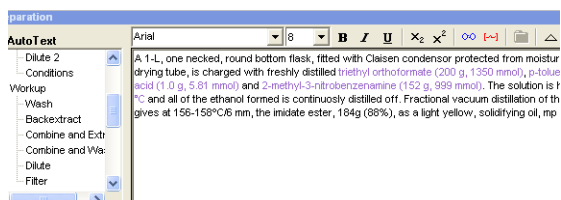
### Managing AutoText Fields

With AutoText Fields, users can enter text that is related to other data in a form. Users can add pre-defined fragments of text automatically, and values from other fields in a section may be pulled in as well. The E-Notebook User's Guide provides instructions for configuring AutoText. Note that for the AutoText features to function, the AutoText collection type name, section type name, and field names in the section type must not be changed.

If you configure the Styled Text Field to display the toolbar, users may alter any of the following formatting options.

• Font	• Underline
• Font Size	• Superscript
• Bold	• Subscript
• Italics	

An example of a Styled Text Field is shown below.



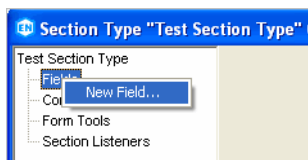
To add a Styled Text field:

1. In the Collection tree, right-click the Section Type to which you wish to add the field.

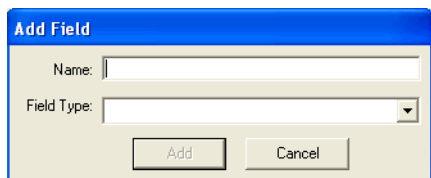
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.



The Add Field dialog appears.

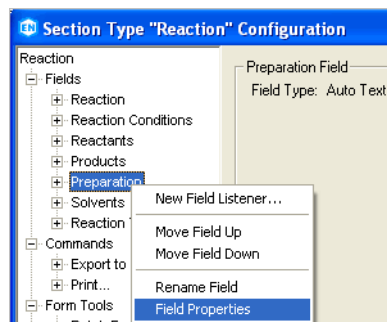


4. Enter a name, and select AutoText from the drop-down list of field types.

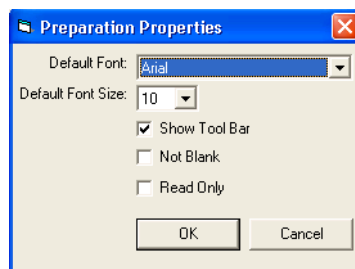
5. Click Add.

The new field appears in the list of fields.

6. Right-click the styled text field, and select Field Properties from the menu that appears.



7. You may edit the following properties, if desired:



- **Default Font** – you may select another font from the drop-down list to change the default to something other than Times Roman.
- **Default Font Size** – you may select a larger or smaller font size from the drop-down list.
- **Show Tool Bar** – if you clear the checkmark, the toolbar will not appear above the styled text field in the form.
- **Not Blank** – If you select this option, the styled text field must contain text when a user performs a specific transition on a collection. This option must be used in conjunction with the Required Properties Transition Listener.
- **Read Only** – the styled text field is for display only, and only administrators may edit it.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing AutoText Field Listeners

An AutoText Field Listener modifies the behavior of an AutoText field in E-Notebook.

### Managing the AutoText Color Field Listener

The AutoText Color Field Listener allows you to configure the color of AutoText items within an AutoText field.

Table Listener	IENTableListener Progid
AutoText Color	ENStyledTextPlus9.AutoText-ConfigFLstnr

You select the color you desire through the custom properties of the listener.

## Managing Chemical Structure Fields

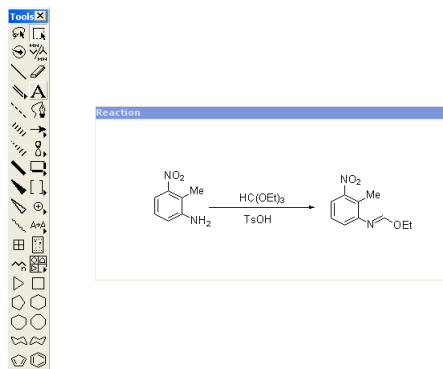
Chemical Structure Fields make it possible for users to draw or import drawings of chemical structures and reactions. These fields make use of the ChemDraw ActiveX Control. An example of a Chemical Structure Field is shown below. These fields may also be used for images. Users can paste in standard images, such as GIFs and JPEGs.

Users can access a ChemDraw menu by right-clicking within the structure window. This menu allows a user to, among other things, copy and paste structures.

Users may dismiss the ChemDraw toolbar at any time. For more information about using the Chem-

Draw Toolbar, please see the ChemDraw User's Guide.

It is possible to associate a listener with a chemical structure field to perform a specialized function. E-Notebook offers a listener that automatically updates the stoichiometry grid when a user modifies a reaction drawing. See “Managing the Analyze Reaction Chemical Structure Listener” on page 689 for more information.

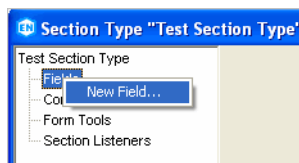


To add a chemical structure field to a section type:

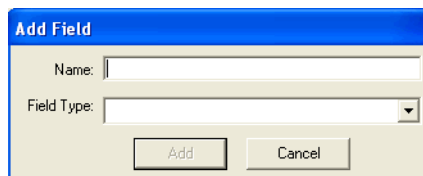
1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.



4. The Add Field dialog appears.



5. Enter a name, and select Chemical Structure from the drop-down list of field types.
6. Click the Add button.

The new field appears in the list of fields.

**NOTE:** *Anything that you draw in the Chemical Structure Field will appear with the new sections of this type that users create.*

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

You may also develop your own Chemical Structure Field Listeners to further customize the behavior of chemical structure fields in E-Notebook.

## Managing Chemical Structure Field Listeners

A Chemical Structure Field Listener modifies the behavior of a chemical structure field in E-Notebook.

### Managing the Analyze Reaction Chemical Structure Listener

The Analyze Reaction Chemical Structure Listener may be associated with chemical structure fields to update a stoichiometry grid automatically when a user edits a reaction drawing. For automatic analysis to occur, you must also associate the [Analyze Reaction Table Listener](#) with both the reactants and products table fields.

Active Document Listener	IENActiveDocListener ProgID
Analyze Reaction	ENStandardCtl9.AnalyzeRxnCSListener

This listener has custom properties associated with it. You must select the reactants field and the products field in the stoichiometry grid.

### Managing the Chemical Property Chemical Structure Listener

The Chemical Property Chemical Structure Listener calculates chemical structure properties of molecular weight and molecular formula, and inserts them into a property list when the contents of the chemical structure change.

Active Document Listener	IENActiveDocListener ProgID
Chemical Property	ENStandardCtl9.ChemPropertiesCSListener

The following are required in the section type in order to use this listener.

- A chemical structure field.
- A property list with the following properties: Molecular Weight and Molecular Formula.

## Configuring E-Notebook with ISIS Draw Tool

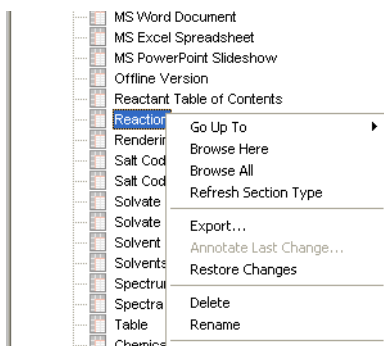
This topic provides instructions for administrators who are adding the ISIS/Draw® tool to the E-Notebook configuration.

Tool	Tool ProgID
ISIS Draw	ENISISDraw9.ISIS-DrawCSListener

To add the form tool to a section type:

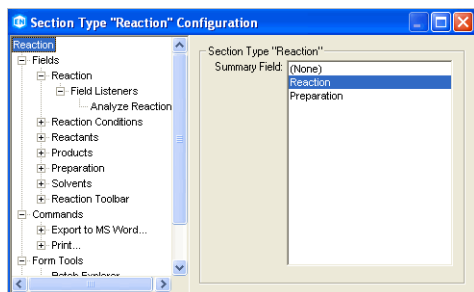


1. Browse to the Section type in the Collection tree and right-click on it to display the following menu:



2. Select Reaction and right click it to select Section Type Configuration from the menu that appears.

The Section Type configuration dialog appears as:

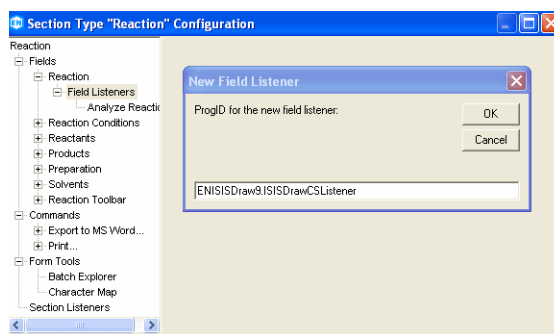


3. Right-click Field Listener, and the following dialog follows:



4. Replace the Analyze Reaction field listener, with a new field listener. For this, click New Field Listener. Enter a name and type ENISISDraw9.ISISDrawCSListener in the

ProgID of the Reaction field listener, as shown above. This listener implements ISIS Draw editing.



5. Click OK, and following dialog appears:

To countercheck that the configuration is done properly, click Custom Properties, and the following dialog should appear:

6. Click OK, to dismiss the dialog.

7. Close the Section Type Configuration dialog.

## Managing Database Table Fields

Database table fields display the results of a SQL SELECT statement (represented as an ADO record set). These fields are for display only, and users may not edit them.

A Database Table Field may exist independently in a section. Or, you may set up the field such that its value(s) are determined by a value in a separate property list field that is part of the same section.

See the following topics:

- “Creating a Database Table Field” on page 690.
- “Configuring a Database Table Field” on page 691.

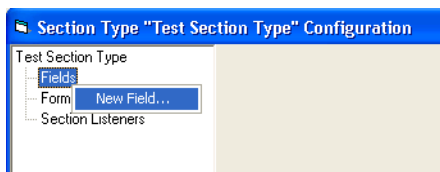
## Creating a Database Table Field

Database Table Fields are used to display data that is pulled in from an external database.

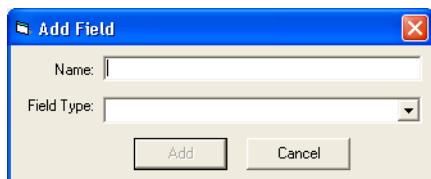
To create a Database Table Field:

1. In the Collection tree, right-click the Section Type to which you wish to add the Property List.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.



3. Right-click Fields, and select New Field....
- The Add Field dialog appears.



4. Enter a name, and select Database Table from the drop-down list of field types.
5. Click Add.

The new Field appears in the list of Fields.

See “Configuring a Database Table Field” on page 691 for instructions on defining the data to be displayed in the Field.

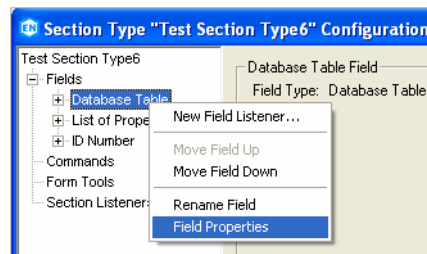
Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Configuring a Database Table Field

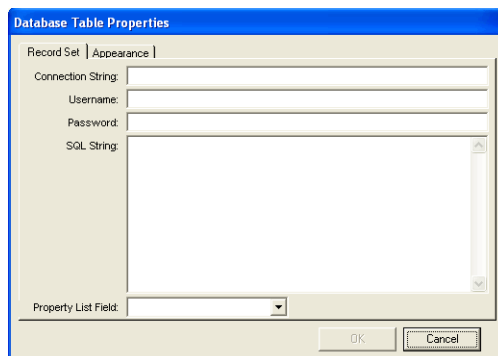
Database Table Fields are used to display data that is pulled in from a database.

To configure a Database Table Field:

1. Right-click the Database Table Field in the Section Type Configuration dialog, and select Field Properties from the menu that appears.



The Properties dialog appears.



2. Enter the following information. (See below for examples).

- **Connection String** – A string used to define a connection to a database. If this string is 0-length (Null in the database), then it is assumed to be a connection to the primary schema of the E-Notebook database. If the string is a path to an MDB file, then a connection is made to that file using the Microsoft Access OLEDB provider. Otherwise, the string is treated as a valid string that can be assigned to an ADODB.Connection object's ConnectionString property.
- **Username** – An optional string used to specify the logon identification required to connect to the specified database. If the Username is 0-length and the Connection

String is 0-length, then the owner of the primary schema of the E-Notebook database is used as the username.

- **Password** – An optional string used to identify the logon ID required to connect to the specified database. If the UserName is 0-length and the Connection String is 0-length, then the password is ignored.
- **SQL String** – A required string that starts with the text “SELECT “. This string is used to specify the record set that appears within the E-Notebook section. The SQL String can have the following special phrases that are dynamically replaced based on the location of the section cell.
- **%%section\_key%%** – The unique identifier for the section containing the section cell in which the record set appears. This datum corresponds to a value in the primary\_key column for a row in the ELN\_sections table.
- **%%field\_key%%** – The unique identifier for the field that describes the section cell in which the record set appears. This datum corresponds to a value in the primary\_key column for a row in the ELN\_fields table.
- **%%collection\_key%%** – The unique identifier for the collection that contains the section containing the section cell in which the record set appears. This datum corresponds to a value in the section\_set\_key column for a row in the ELN\_collections table.
- **%%session\_key%%** – The unique identifier for the database session in which the record set is retrieved. This datum corresponds to a value in the primary\_key column for a row in the ELN\_sessions table.

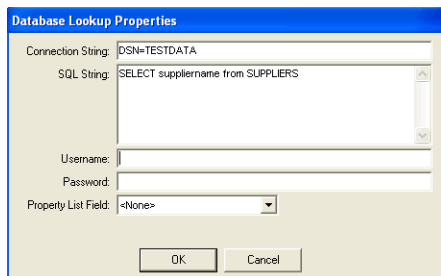
- **%%logged\_in\_user\_key%%** – The unique identifier for the person record for the user that initiated the database session in which the record set is retrieved. This datum corresponds to a value in the primary\_key column for a row in the ELN\_people table.
- **%%home\_collection\_key%%** – The unique identifier for the home collection of the user that initiated the database session in which the record set is retrieved. This datum corresponds to a value in the section\_set\_key column for a row in the ELN\_collections table.
- **%%access\_view%%** – The name of the table used to validate security privileges for the logged in user.
- In addition, a SQL string may contain the name of a property that appears in a property field in the same section as the DBTable section cell. This property field is identified using the property field name property of the SQL section cell, below. For example, a property could appear in the WHERE clause of the SQL statement to determine which records in the database table appear
- **Property List Field** – An optional name of a property list field that contains properties which are used to parameterize the SQL statement, above .

3. Click OK .

Several examples are given below. Note that the syntax of the query may vary depending upon the type of database you are querying.

### *Example 1*

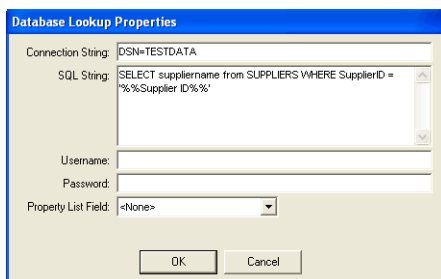
In this example, all of the values for **suppliername** are pulled in from the external database table **Suppliers**.



- **suppliername** – value to be displayed in Database Lookup Table.
- **Suppliers** – name of external database table.

### Example 2

In this example, the value **suppliername** is pulled from the external database table **Suppliers**. The **suppliername** displayed in the database table field corresponds to the value that a user has entered into a property list. A user enters **SupplierID** into the Supplier ID property, which exists in a Property List named ID Number.



- **suppliername** – value to be displayed in Database Lookup Table.
- **Suppliers** – name of external database table.
- **SupplierID** – the supplier ID field in the external database table.
- **ID Number** – name of the E-Notebook property list containing the Supplier ID property.

- **Supplier ID** – name of the E-Notebook property into which a user enters the value for SupplierID.

## Managing Database Value Fields

Database Value Fields are used to pull in and display values that are the results of SQL query from an external database.

To create a Database Value Field:

1. In the Collection tree, right-click the Section Type to which you wish to add the Property Value.

2. Select **Section Type Configuration** from the menu that appears.

The **Section Type Configuration** dialog appears.

3. Right-click **Fields**, and select **New Field**.

The **Add Field** dialog appears.

4. Enter a name, and select **Database Value** from the drop-down list of field types.

5. Click **Add**.

The new Field appears in the list of Fields.

See *Configuring a Database Value Field* for instructions on defining the data to be displayed in the Field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Configuring a Database Value Field

To configure a Database Value Field:

1. Right-click the Database Value Field in the Section Type Configuration dialog, and select **Field Properties** from the menu that appears.

The Properties dialog appears.

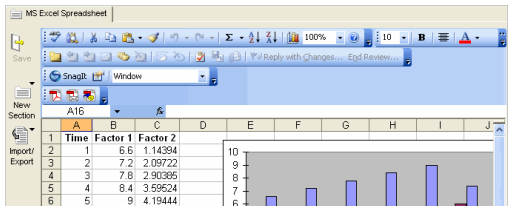
2. Enter the properties. See step 2 in “Creating a Database Table Field” on page 690 for details.
3. Click **OK**.

Note that the syntax of the query may vary depending upon the type of database you are querying.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Excel Fields

Excel Fields make it possible for users to embed and edit Microsoft Excel documents in E-Notebook sections. An example of an Excel Field is shown below. If the Active Doc Form Tool is associated with the section, a user may import or export the document.



To add an Excel Field section type:

1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.



The Add Field dialog appears.

A screenshot of the 'Add Field' dialog box. It has a 'Name' text box and a 'Field Type' dropdown menu. Below these are 'Add' and 'Cancel' buttons.

4. Type in a name, and select **Excel Spreadsheet** from the drop-down list of field types.
5. Click **Add**.

The new field appears in the list of fields.

In order for users to be able to import and export the MS Excel spreadsheet, you must associate the [Active Document Form Tool](#) with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Break Link Excel Listener

The Break Link Excel Listener may be associated with the Excel fields to break the links to external data sources in Excel documents when the document is saved. If links are present in the field, they will be stripped from the document when the user browses away and the user will be warned when saving the file that the link will be broken once the document is saved in E-Notebook.

Listener	IENListener ProgID
Break Link	ENStandardCtl9.Break-LinksOLListener

The listener has no custom properties associated with it.

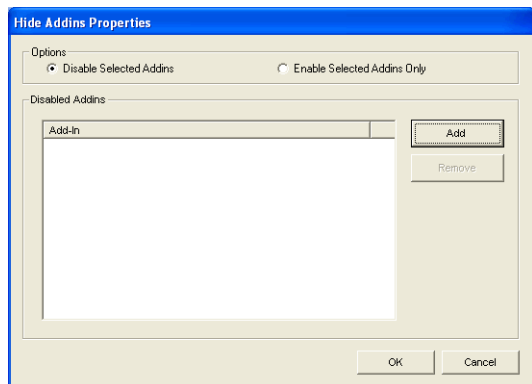
## Managing Hide Addins Excel Listener

The Hide Addins Excel Listener may be associated with the Excel fields and disables and enables specified Excel Add-ins associated with the Excel field.

Listener	IENListener ProgID
Hide Addins	ENStandardCtl9.HideAdd-insOLListener

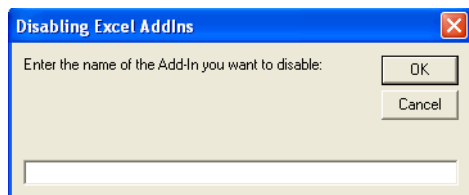
With the field listener selected in the tree,

1. Click the Custom Properties button in the right panel to configure the properties associated with it:



A dialog to configure the field listener opens. It contains a box to list the Disabled Addins, an enabled Add button, and a disabled Remove button.

2. Click Add. A dialog opens that allows you to enter the name of the Add-In you want to disable.



3. Enter name of an Add-In in the text box and click OK. The dialog closes. The name you entered is added to the Disabled Addins box, below the text you added previously.
4. Similarly, to remove a previously added Add-In from the disabled list, select one of the items in the Disabled Addins box. The Remove button gets enabled.
5. Click Remove. The selected item is removed from the list in the Disabled Addins box.
6. Click OK. The dialog to configure the field listener closes.

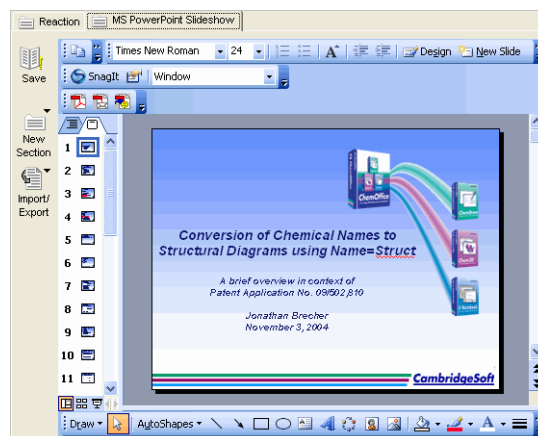
## Managing Remove Macros Field Listener

The Remove Macros Field Listener may be associated with the Excel fields to remove macros from the field when a user performs a save. The user will be presented with a message stating that the macros will be removed when the spreadsheet is saved.

Listener	IENListener ProgID
Remove Macros	ENStandardCtl9.RemoveMacrosFLListener

## Managing PowerPoint Fields

PowerPoint Fields make it possible for users to embed and edit MS PowerPoint Slideshows in E-Notebook sections. An example of a PowerPoint Field is shown below.



If the Active Doc Form Tool is associated with the section, a user may import or export the document.

To add a PowerPoint Field section type:

1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.

The Add Field dialog appears.

4. Type in a name, and select PowerPoint Slide-show from the dropdown list of field types.
5. Click Add.


The new field appears in the list of fields.

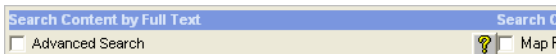
In order for users to be able to import and export the MS PowerPoint Slideshows, you must associate the Active Document Form Tool with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Context Sensitive Help Fields

Context Sensitive Help Fields are used in search forms. They create a shortcut to the E-Notebook User's Help Guide in the search form. Thus, these fields make it possible for users to go directly to the Help guide to find the information regarding the instructions for using E-Notebook quickly and easily.

A Context Sensitive Help  Field is visible in search forms next to the text query field as shown:



To add a PowerPoint Field section type:

1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.

The Add Field dialog appears.

4. Type in a name, and select Context Sensitive Help from the dropdown list of field types.
5. Click Add.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Captured Image Fields

Captured Image Fields allow users to view and edit PDF images and documents, using the same tools as Adobe Acrobat software, thus helps manage PDF files in E-Notebook.

If you associate the Active Document Form Tool with a Captured image field, users can import or export the PDF documents. Associating the Image Importer Form Tool allows users to import images of various types as well.

**NOTE:** *Export to PDF is only available in Enterprise versions of E-Notebook.*

To add a Captured Image field:

1. In the Collection Tree, right-click the section type to which you wish to add the Captured Image field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.

The Add Field dialog appears.

4. Type in a name, and select PDF Viewer from the dropdown list of field types.
5. Click Add.

The new field appears in the list of fields.

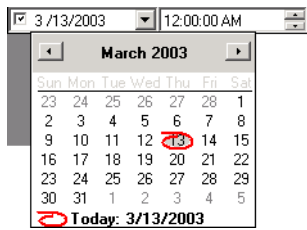




In order for users to be able to import and export the PDF documents and to import images, you must associate the Active Document Form Tool

and Import Image Form Tool respectively with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Property Lists

Property Lists are used in forms to record various types of data properties. Property lists allow the following data types:

Data type	User perspective	
Date	A user may click the date box, and type in a date and time.	
Text	A user may enter text.	
Number	A user may enter a number. A property may also be configured to have units associated with it.	
Enumerated Value	A user may choose a value from the drop-down list. The values may be from either a preconfigured list or a list that is pulled from an external database.	
Validated Value	A user may enter a value, which is validated against an external database.	

You may configure property lists so that they are read-only, or so that they must contain certain values before a collection transition is performed.

Another feature of property lists is the ability for users to add references to them. When a user adds a reference to a property, he may navigate to the collection or section he has referenced, simply by clicking a link in the property cell.

## Creating a Property List

This topic provides instructions for adding a Property List to a Section Type and configuring the Property List.

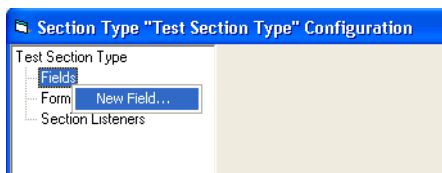
To add a Property List:

1. In the Collection tree, right-click the Section Type to which you wish to add the Property List.

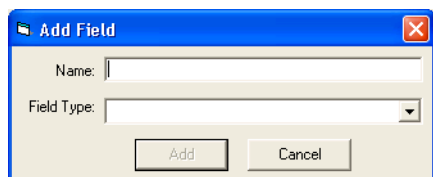


2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.



3. Right-click **Fields**, and select **New Field**.  
The Add Field dialog appears.



4. Enter a name for the field and select **Property List** from the list of Field Types.
5. Click **Add**.

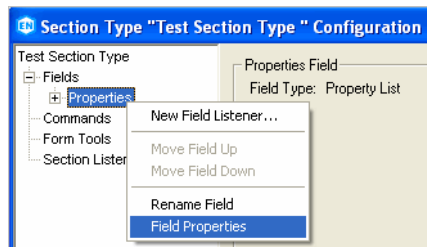
The new Field appears in the list of Fields.

### *Adding a Property to the Property List*

To add a Property:

1. Right-click the **Property List** field in the Section Type Configuration dialog.

A menu appears.



2. Select **Field Properties**.

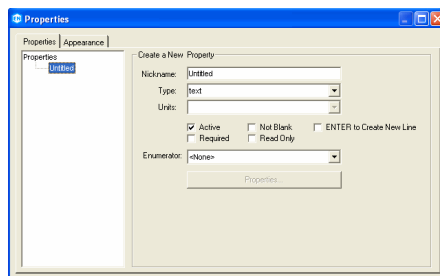
The Field Properties dialog appears.

3. Click the **Properties** tab.

The Properties tab appears.

4. Right-click the name of the field and select **New Property** from the menu that appears.

A new property appears in the tree. It's attributes appear to the right:



5. Type in a **Name** and **Nickname** for the property.

- **Name** – appears when a user selects the property for a search.
- **Nickname** – is displayed on the screen, in the printed copy, and in an exported Word document.

6. Select the **Type** from the drop-down list. (See “Managing Units in Property Lists and Tables” on page 726 for more information).

7. Select the **Units** from the drop-down list (if applicable for the Type you have selected)

8. Click the checkboxes for the attributes you wish to apply to the property:

- **Active** – users can add new instances of the Property to the Sections they create.
- **Read-Only** – the property is for display only, and users may not edit it.
- **Required** – the user may not delete the property from the section.
- **Not Blank** – the user must enter a value for the property before he can perform a particular transition on the Collection. For example, you may set up an experiment Collection such that it is necessary to enter an equipment id before a user can close the experiment. If the user has not entered a

value for the property, he will be prompted to enter it when he attempts to perform the transition. The Not Blank attribute must be used in conjunction with the Required Properties Transition Listener.

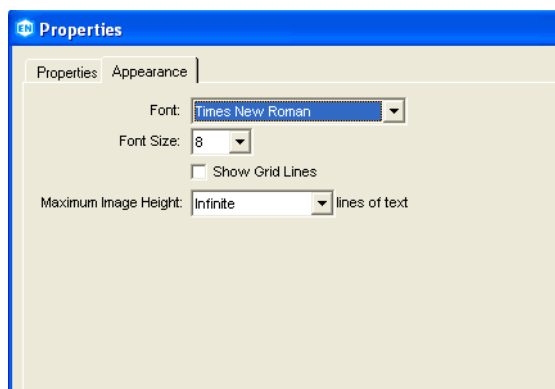
- **ENTER to Create New Line** – if a user is editing the property and presses ENTER, a new instance of the property will appear in the property list.
9. If the property is type text, you may select the following:
    - **Enumerator** – values displayed in a drop-down list for any particular property may be pulled from an external database, or from a list of values you enter. See “Managing Database Values in Property Lists” on page 701.

### Configuring the Appearance of a Property List

To configure the appearance of a property list:

1. Click the Appearance tab.

The Appearance tab appears.



2. Select a Font from the drop-down list.
3. Select a font size from the Font Size drop-down list.
4. Select whether or not the grid lines will be displayed, by clicking the checkbox.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

### Managing Enumerated Values in Property Lists

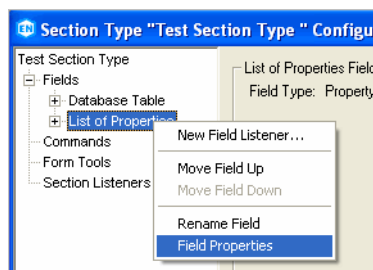
You may configure a text property so that it will contain a list of enumerated values. A user may then select one of the values from a drop-down list that appears in the property cell. This list of values may be either manually entered, as described here, or pulled from an external database, as described in “Managing Database Values in Property Lists” on page 701.

To associate a list of manually entered values with a property:

1. In the Collection Tree, right-click the section type containing property you wish to configure.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click the property list field in the list of fields, and select **Field Properties** from the menu that appears.

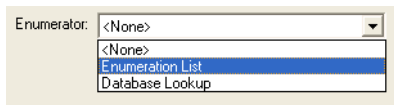


The Field Properties dialog appears.

4. Click the property for which you would like to add the list of enumerated values.

The attributes of the property appear to the right.

- Click the drop-down arrow for the Enumerator, and select Enumeration List.



- Click the Properties button.

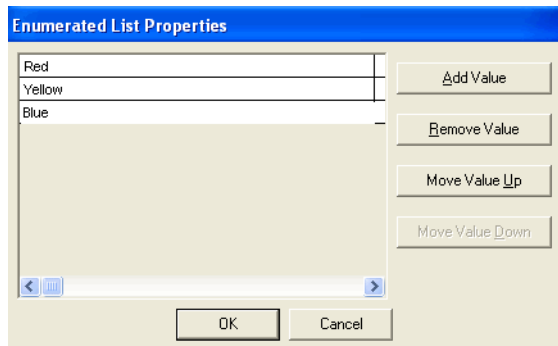
**NOTE:** The button will only be enabled for a property of data type text.

The Enumerated List Properties dialog appears.

- Click the Add Value button.

A blank item appears in the list.

- Enter a value.



- Click Add Value to add another value, or OK to close the dialog.

The values you entered will appear in a drop-down list in the property cell.

To Edit an Enumerated Values List:

- In the Collection Tree, right-click the section type to you wish to configure.
- Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

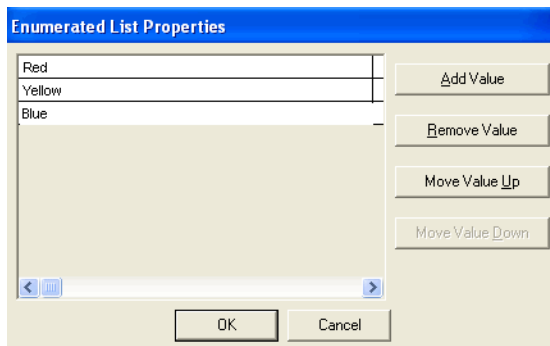
- Right-click the property list field in the list of fields, and select Field Properties from the menu that appears.

- The Field Properties dialog appears. Click the property whose values you wish to edit.

The attributes of the property appear to the right. Enumeration List is displayed as the type of Enumerator.

- Click the Properties button under the Enumerator.

The Enumerated List Properties dialog appears:



- Click any value to edit it, or click Remove Value to delete it. To move a value up or down in the list, click the Move Value Up or Move Value Down button, respectively.
- Click OK to close the dialog.

## Modifying Properties without Obscuring Data

Note that if you change the name of a property, the name will change in all collections that include the property, even collections that are in a locked, read-only state. This means that you could potentially obscure data by changing property names.

The following procedure is recommended for changing the name of a property:

- In the collection tree, select the section type containing the property you wish to modify.  
The section type is displayed.
- Right-click the field containing the property, and select Field Properties from the menu that appears.

The properties of the field are displayed.

3. Click the property you wish to change.

The attributes of the property are displayed in the right frame.

4. Deselect the Active checkbox. This will prevent users from adding new instances of the property to new or existing sections.
5. Add a new property (right-clicking Properties and selecting **New Property** from the menu that appears) and give it the new name.
6. Close the Section Type Configuration dialog.

If a section of this type appears by default in one of the collection types, you will have to remove the old property from the collection type.

7. Click the collection type in the tree to select it.
8. In the section containing the property, right-click the property and select **Remove Property**.
9. Right-click within the field and select **Add Property**, then select the new property you created in step 5, above.

Note that once you have made this change, it will still be possible for users to view the old property in the collections that contain it, and to conduct searches that contain the old property as well.

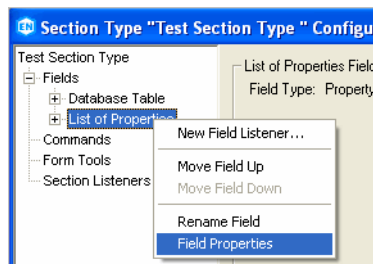
## Managing Database Values in Property Lists

This topic provides instructions for configuring database lookups in property lists. Database lookups are used to pull in and display values from a database. You may also validate a value that a user enters into a property list against an external database; see “Managing the Validate Value Property List Listener” on page 706 for more information.

1. In the Collection tree, right-click the section type to you wish to configure.
2. Select **Section Type Configuration** from the menu that appears.

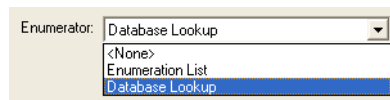
The Section Type Configuration dialog appears.

3. Right-click the property list field in the list of Fields, and select **Field Properties** from the menu that appears.



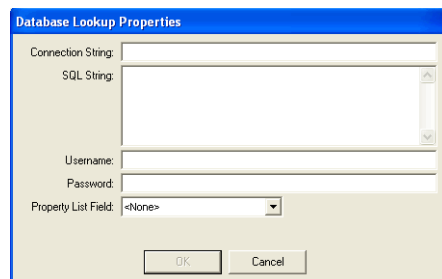
The Field Properties dialog appears.

4. Click the property for whose value(s) you wish to pull from an against an external database.
5. Click the drop-down arrow for Enumerator, and select **Database Lookup**.



6. Click the **Properties** button.

The Database Lookup Properties dialog appears.

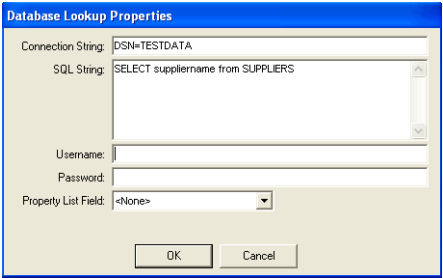


7. Enter the properties. See step 2 in “Creating a Database Table Field” on page 690 for details.
8. Click **OK**.

Several examples are given below. Note that the syntax of the query may vary depending upon the type of database you are querying.

### Example 1 – Database Lookup Configuration

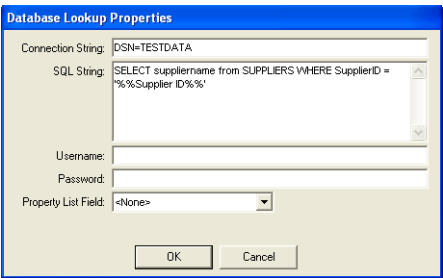
In this example, all of the values for suppliername are pulled in from the external database table Suppliers. The values will appear in a drop-down list in the property cell.



- **suppliername** – value(s) to be displayed in E-Notebook property.
- **Suppliers** – name of external database table

### Example 2 – Database Lookup Configuration

In this example, the value suppliername is pulled from the external database table Suppliers. The suppliername displayed in the database table field corresponds to the value that a user has entered into a property list. A user enters SupplierID into the Supplier ID property, which exists in a Property List named ID Number.



- **suppliername** – value to be displayed in E-Notebook property.
- **Suppliers** – name of external database table.
- **SupplierID** – the supplier ID field in the external database table.

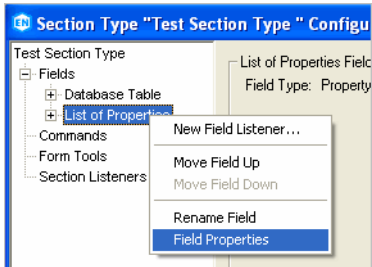
- **ID Number** – name of the E-Notebook property list containing the Supplier ID property.
- **Supplier ID** – name of the E-Notebook property into which a user enters the value for SupplierID.

## Managing Enumerated Values in Property Lists

You may configure a text property so that it will contain a list of enumerated values. A user may then select one of the values from a dropdown list that appears in the property cell. This list of values may be either manually entered, as described here, or pulled from an external database, as described in the Managing Database Values in Property Lists topic.

Associating a list of manually entered values with a property:

1. In the Collection Tree, right-click the section type containing property you wish to configure.
2. Select Section Type Configuration from the menu that appears.  
The Section Type Configuration dialog appears.
3. Right-click the property list field in the list of fields, and select Field Properties from the menu that appears.

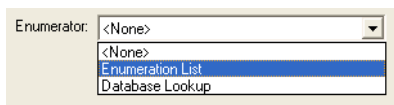


The Field Properties dialog appears.

4. Click the property for which you would like to add the list of enumerated values.

The attributes of the property appear to the right.

5. Click the dropdown arrow for the Enumerator, and select Enumeration List.



6. Click the Properties button.

---

**NOTE:** *the button will only be enabled for a property of datatype text.*

---

The Enumerated List Properties dialog appears.

7. Click the Add Value button.
8. Enter a value.
9. Click Add Value to add another value, or OK to close the dialog.

The values you entered will appear in a drop-down list in the property cell.

Editing an Enumerated Values List:

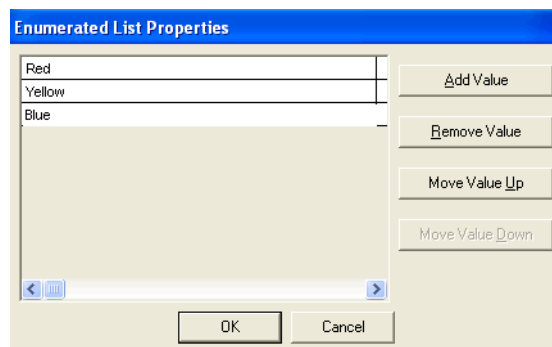
1. In the Collection Tree, right-click the section type to you wish to configure.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.
3. Right-click the property list field in the list of fields, and select Field Properties from the menu that appears.

The Field Properties dialog appears.
4. Click the property whose values you wish to edit.

The attributes of the property appear to the right. Enumeration List is displayed as the type of Enumerator.

5. Click the Properties button under the Enumerator.



The Enumerated List Properties dialog appears.

6. Click any value to edit it, or click Remove Value to delete it. To move a value up or down in the list, click the Move Value Up or Move Value Down button, respectively.
7. Click OK to close the dialog.

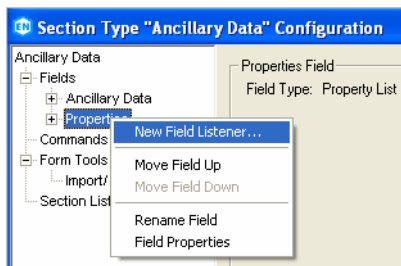
## Managing Property List Listeners

A Property List Listener modifies the behavior of an E-Notebook property list. E-Notebook provides a number of standard property list listeners: You may also develop your own Property List Listeners to further customize the behavior of property lists in E-Notebook.

To add a property list listener:

1. From the Section Type Configuration dialog, right-click the property list field to which you wish to add the listener.

2. Select New Field Listener...from the menu that appears.



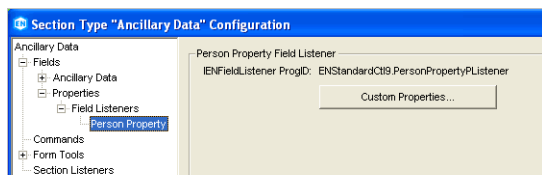
A dialog appears, prompting you to enter the ProgID for the listener.

3. Enter the ProgID and click the OK button.  
The listener appears in the left frame and you are prompted to rename it.
4. Enter a name for the listener.

To view and edit the properties of the property list listener:

1. Click the listener.

The ProgID and properties button appear to the right.



2. Click the Custom Properties button.  
If the listener has properties associate with it, they are displayed, and may be edited.

## Managing the Formula Listener

The formula listener makes it possible to perform calculations in a cell using other numerical data in the section and various functions. The listener allows you to specify the target property, the formula, and an optional format.

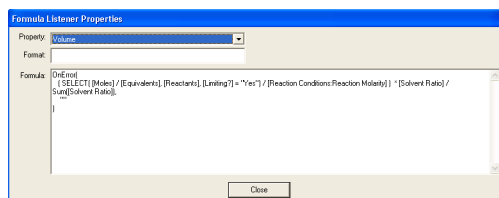
It is also possible to calculate a value in a property list; see Managing the Formula Property List Listener for more information.

Listener	IENTableListener ProgID
Formula	ENStandardCtl9.FormulaListener

To add a formula for a property:

3. Click the Custom Properties button for the field listener.

The Formula Listener Properties dialog appears. The dropdown list at the top of the dialog contains a list of all of the properties in the table.



4. Select the target property that is to be calculated from the dropdown list.  
The selected property is displayed.
5. Type the formula into the formula box.
6. To reference values in other tables or property lists within the same section, begin and end the reference with square brackets ([and]), and use colons to denote specific properties. For example, [Reaction Conditions: Reaction Molarity] refers to the Reaction Molarity property in the Reaction Conditions property list.

Standard symbols may be used:

- +, -, /, \*, =, >, <, <>, <=, &, !, !=, %, +/-
- Boolean operators may be used:
- NOT, AND, OR, XOR

You may use functions:

- **IF(test, trueValue, [elseTest, elseTrueValue], falseValue):** returns one of two values, depending upon whether the test returns True or False.
  - **OnError:** returns the first argument if it can be calculated without error. If an error would occur in the calculation of the first argument, the second argument is returned (in this example, a blank cell would be returned).
  - **SaltWeight(salt code):** returns the molecular weight property of the salt with this salt code. The Salt Codes are found in a user's User Configuration folder.
  - **SUM(tableproperty):** returns the sum of the table cells for the property you specify.
  - **SELECT (value, tablefield, condition):** allows you to select a value in a table based on a condition, e.g. **SELECT ([Moles] \* [Equivalents], [Reactants], [Limiting?] = "Yes")** returns the value of **[Moles] \* [Equivalents]** from the Reactants table for the limiting reactant.
7. Use the format field if you wish to format the numeric value.

Operands in a formula are evaluated in the following order:

- Parentheses
- NOT
- \*, /, %, &
- +, -, +/-
- =, <, <=, >, >=, <>, !=
- AND
- OR, XOR
- Commas are used to separate arguments within functions.

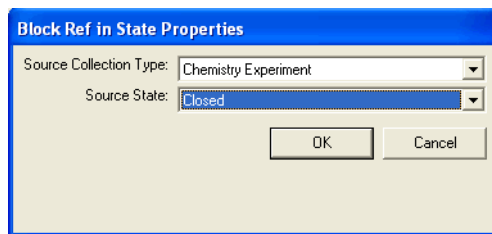
- Whenever the contents of the section are changed, the formula will be checked, and the target cell will be recalculated if necessary.

## Managing the Block Reference In State Property List Listener

The Block Reference In State property list listener may be used to block users from adding a reference to a specific type of collection that is in a particular state. If the listener is configured to block the reference, the user will be unable to add the reference to the property list. For example, you may wish to prevent users from adding references to pages/experiments that are in an archived state.

Property List Listener	IENPropertyListListener ProgID
Block Reference In State	ENStandardCtl9.BlockRefInStatePLListener

This property list listener has custom properties associated with it. You must select the collection type and state corresponding to the references that will be blocked. In the example below, a user will be prevented from adding a reference to an "Page" collection that is in the "Closed" state.



Note that you may associate multiple instances of this listener with a property list, if you would like to prevent users from adding references to several different collection types and/or several different states of a collection type.

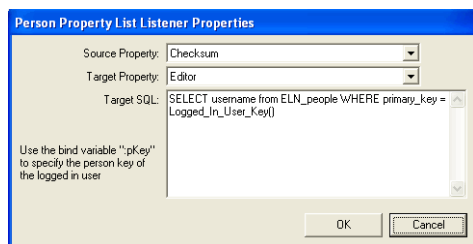


## Managing the Person Property List Listener

The Person Property List Listener populates the value of a property with the logged-on user's name whenever the value of another property is changed.

Listener	Listener ProgID
Person Property	ENStandardCtl9.Person-PropertyPLListener

The listener has custom properties associated with it:



Fill in the following information.

- **Source Property** – the property that, when changed, will populate the target property with the logged-on user's name.
- **Target Field** – the field containing the property that will display the user name or user ID.
- **Target Property** – the property that will display the user name or user ID.
- **Target SQL** – the SQL statement that selects the username or user ID.

In the example shown above, a change to the source property “Checksum” will populate the “Editor” property with the name of the logged-on user.

## Managing the Chemical Properties Property List Listener

The Chemical Properties Property List Listener populates the Molecular Weight and Molecular

Formula properties automatically as the drawing in a chemical structure field is changed.

Listener	Listener ProgID
Chemical Properties	ENStandardCtl9.ChemPropertiesCSListener

The following is required in the section type in order to use this listeners.

- A chemical structure field.
- A property list with the following properties: Molecular Weight and Molecular Formula.

The listener has no custom properties associated with it.

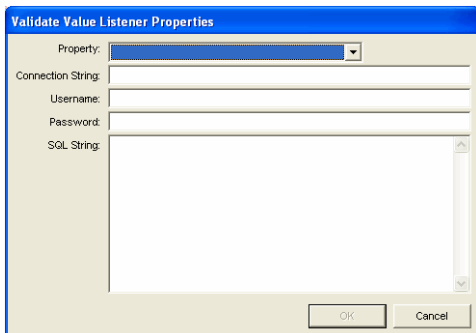
## Managing the Validate Value Property List Listener

The Validate Value Property List Listener allows you to validate a value in a property list against an external database, to ensure the value entered into E-Notebook is valid. If it is not a valid value, the user will be presented with an error message to that effect.

Property List Listener	IENPropertyListListener ProgID
Validate Value	ENStandardCtl9.ValidateValuePLListener

Clicking the Properties button after adding the listener to a property list displays the following dialog. Here, you select the property to be validated from the Property drop-down list. Then, enter the

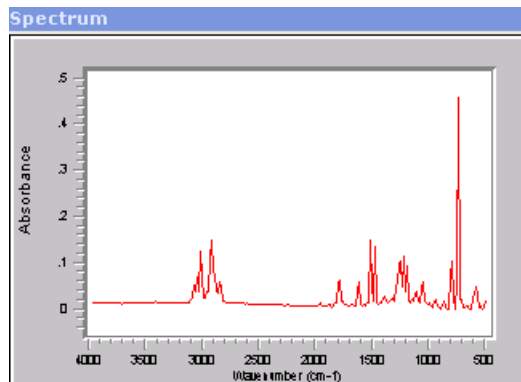
database connection information and the SQL string to be used for validating the value.



## Managing Spectrum Fields

Spectrum Fields allow users to view and analyze spectrum images, using the same tools as Galactic GRAMS32 software.

If you associate the Spectrum Form Tool with a spectrum field, users can import spectrum images of various types. The form tool allows users to copy and export spectrum images as well.



To add a spectrum field:

1. In the Collection Tree, right-click the section type to which you wish to add the spectrum field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.

The Add Field dialog appears.

4. Type in a name, and select Spectrum from the drop-down list of field types.
5. Click Add.

The new field appears in the list of fields.

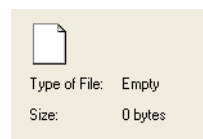
6. In order for users to be able to import and export the spectrum images, you must associate the [Spectrum Form Tool](#) with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Stored Document Fields

With Stored Documents Fields, users can associate document files with sections in E-Notebook. For example, a document file may be an MS Excel spreadsheet or a PDF. Although the file cannot be viewed from within E-Notebook, a user can be export it to a selected location, and then open it and view or edit it from there.

An example of a Stored Document Field is shown below.

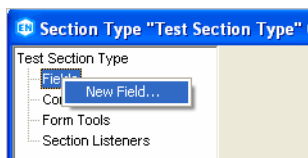


To add a stored document field:

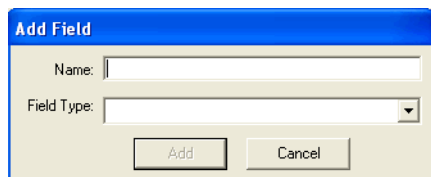
1. In the Collection tree, right-click the Section Type to which you wish to add the stored document field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.



The Add Field dialog appears.



4. Type in a name and select Stored Document from the drop-down list of field types.

5. Click Add.

The new field appears in the list of fields.

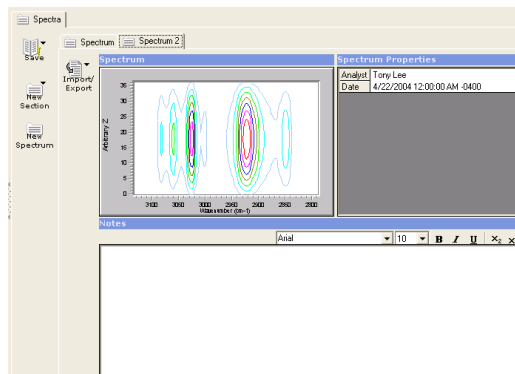
6. In order for users to be able to import and export the stored documents, you must associate the [Active Document Form Tool](#) with the field.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing Subsection Fields

With a subsection field, users may add sections that appear as subtabs. This is one way to keep related sections together in E-Notebook. An example of a subsection field is shown below. In

this example, the subsection field contains two spectrum sections, which appear as subtabs.



To add a subsection field:

1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.



The Add Field dialog appears.

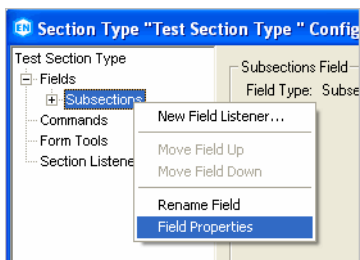
4. Enter a name for the field and select Subsection from the list of field types.

5. Click Add.

The new field appears in the list of fields.

6. If you would like users to be able to add new subsections, you must add the New Subsection Form Tool to the field. Right click the field and select Field Properties from the menu that appears.

The Field Properties dialog appears.

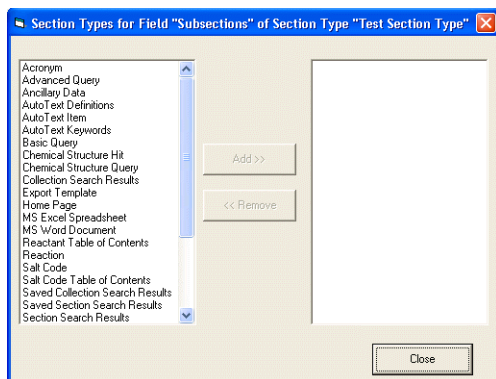


7. Right-click Form Tools and select New Form Tool.

A new form tool appears.



8. Enter the ProgID ENStandardCtl9.NewSectionFormTool in the right frame.
9. Import icons for the form tool (clicking the Import button and selecting an icon file).
10. Click the Custom Properties button.  
A dialog appears, listing all of the section types in E-Notebook.



11. Select the section types you would like the user to be able to add as subsections and click the Add button.  
The section types appear in the right frame.
12. Click the Close button to close the dialog.

13. Rename the form tool, by right-clicking it and selecting Rename Form Tool. This name will appear on the button the user will click to add new subsections.

## Managing Subsection Field Listeners

Subsection field listeners are used to modify the behavior of E-Notebook subsections. E-Notebook provides a standard subsection listener:

- Button View Subsection Field Listener – forces subsections into button view.

To add a subsection field listener,

1. In the Collection Tree, right-click the section type containing the subsection field, and select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

2. Right-click the subsection field in the list of Fields, and select Field Properties from the menu that appears.

The Field Properties dialog appears.

3. Click the Listeners tab.

The listeners tab appears.

4. Right-click Listeners at the top of the left frame and select New Field Listener.

The New Field Listener dialog appears:

5. Enter the ProgID for the Field listener and click OK

The New Field Listener dialog closes.

6. If the listener has custom properties, click the Properties button to configure them.
7. Close the properties dialog.

## Managing the Button View Subsection Listener

The Button View Subsection Listener forces subsections into button view, as shown below. A user may then scroll through the subsections using the

arrow buttons, or right-click a subsection name and select **Go To** in order to browse to a specific subsection.

Subsection Listener	IENSubsectionListener ProgID
Button View	ENStandardCtl9.Button-ViewSSLListener

The Button View Subsection Listener has no custom properties.

## Managing the Hide Tools Subsection Listener

The Hide Tools Subsection Listener hides the form tool area of a subsection for more efficient screen usage.

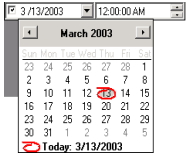


Subsection Listener	IENSubsectionListener ProgID
Hide Tools	ENStandardCtl9.HideToolsSSLListener

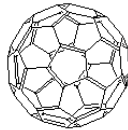

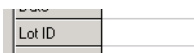
The listener has no custom properties.

## Managing Table Fields

Tables enable users to organize data in an easily interpreted, tabular format. Tables may contain several basic types of data — text data, numerical data, dates, or structures. You may set up tables in different sections in E-Notebook to contain different types of information. You may also associate table listeners with tables to modify their behavior.

Tables allow the following types of data:

Datatype	User perspective	
Date	A user may click the date box, and type in a date and time.	
Text	A user may enter text.	
Number	A user may enter a number. A property may also be configured to have units associated with it.	

Datatype	User perspective	
Structure	A user may enter a chemical structure drawing.	
Enumerated Value	A user may choose a value from a drop-down list. The list may either be a preconfigured list, or pulled from an external database.	
Validated Value	A user may enter a value, which is validated against an external database.	

You may also configure table properties so that they are read-only, or so that they must contain values before a collection transition is performed.

Another feature of tables is the ability for users to add references to them. When a user adds a reference to a table, he may navigate to the collection or section he has referenced, simply by clicking a link in the table cell.

## Creating a Table Field

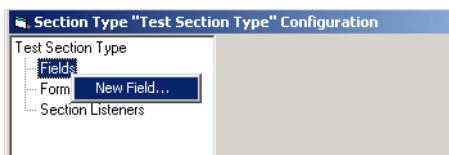
This topic provides instructions for adding a table to a section type and configuring the table.

To add a table:

1. In the Collection Tree, right-click the section type to which you wish to add the table.
2. Select **Section Type Configuration** from the menu that appears.

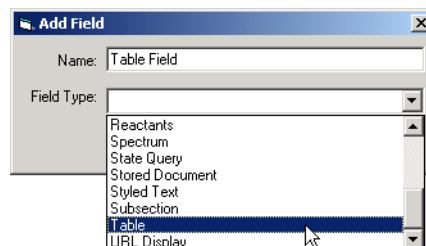
The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.



The Add Field dialog appears.

4. Enter a name for the field and select **Table** from the list of field types.



5. Click **Add**.

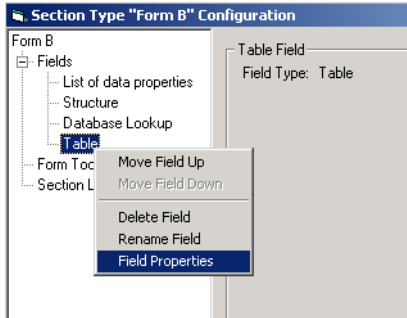
The new field appears in the list of fields.

## Adding a Property to the Table:

**NOTE:** Note: The Properties you add to a Table will initially appear as its columns. Once you have added the table to a form, however, you may pivot the table so that the properties appear as rows.

To add a property to the table:

1. Right-click the table field in the Section Type Configuration dialog.

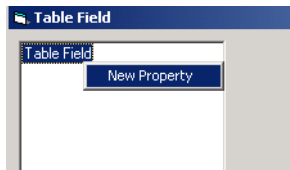


A menu appears.

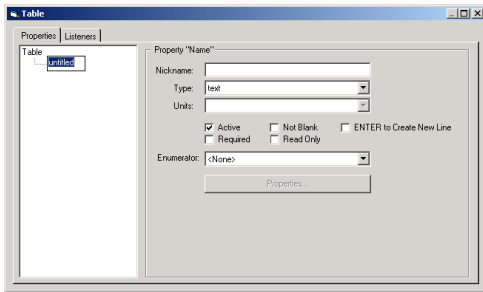
2. Select Field Properties.

The Field Properties dialog appears.

3. Right-click the name of the field and select New Property from the menu that appears.



A new property appears in the tree. It's attributes appear to the right:



4. Type in a Name and Nickname for the property. See step 4 in “Creating a Property List” on page 697 for details.

## Configuring the Appearance of a Table

To configure the appearance of a table:

1. Click the Appearance tab.

The Appearance tab appears.

2. Select a Font from the drop-down list.
3. Select a font size from the Font Size drop-down list.
4. Select whether or not the grid lines will be displayed, by clicking the checkbox.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

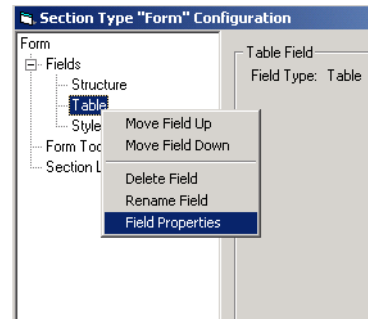
## Managing Database Values in Tables

This topic provides instructions for configuring database lookups in tables. Database lookups are used to pull in and display values from a database. You may also validate a value that a user enters into a table against an external database; see “Managing the Validate Value Table Listener” on page 716 for more information.

1. In the Collection tree, right-click the Section Type to you wish to configure.
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click the Table Field in the list of Fields, and select Field Properties from the menu that appears.

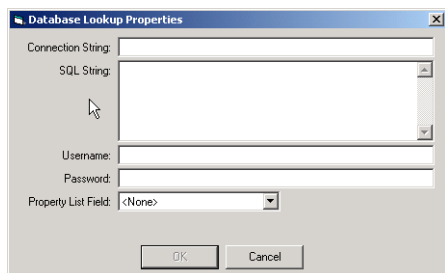


The Field Properties dialog appears.

- Click the Property for whose value(s) you wish to pull from an against an external database.
- Click the drop-down arrow for Enumerator, and select Database Lookup.



- Click the Properties button.



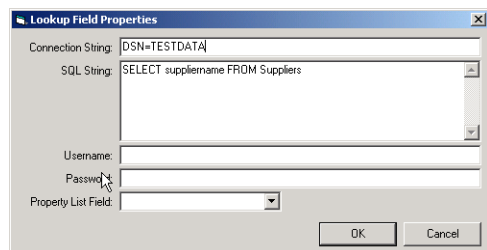
The Database Lookup Properties dialog appears.

- Enter the properties. See step 2 in “Creating a Database Table Field” on page 690 for details.
- Click OK.

Several examples are given below. Note that the syntax of the query may vary depending upon the type of database you are querying.

### Example 1 Database Lookup Configuration

In this example, all of the values for suppliername are pulled in from the external database table Suppliers. The values will appear in a drop-down list in the property cell.

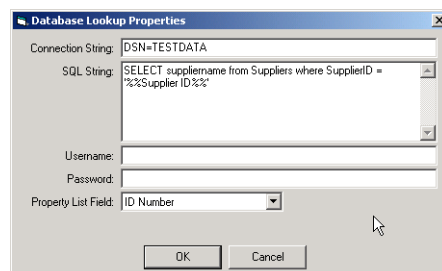


- suppliername** – value to be displayed in the table

- Suppliers** – name of external database table

### Example 2 – Database Lookup Configuration

In this example, the value suppliername is pulled from the external database table Suppliers. The suppliername displayed in the table field corresponds to the value that a user has entered into a property list that exists elsewhere in the E-Notebook section. A user enters SupplierID into the Supplier ID property, which exists in a Property List named ID Number.



- suppliername** – value to be displayed in the table.
- Suppliers** – name of external database table.
- SupplierID** – the supplier ID field in the external database table.
- ID Number** – name of the E-Notebook property list containing the Supplier ID property.
- Supplier ID** – name of the E-Notebook property into which a user enters the value for SupplierID.

### Managing Enumerated Values in Tables

You may configure a table property so that it will contain a list of enumerated values. A user may then select one of the values from the list. This list of values may be either manually entered, as described here, or pulled from an external database, as described in the Managing Database Values in Tables topic.



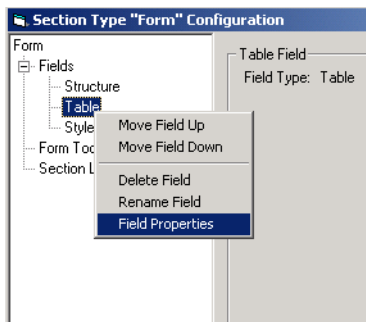
## Associating a list of manually entered values with a property

To associate a list with a property:

1. In the Collection Tree, right-click the section type containing table you wish to configure.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click the table field in the list of fields, and select **Field Properties** from the menu that appears.

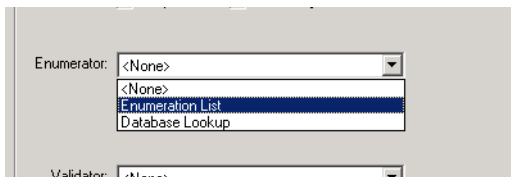


The Field Properties dialog appears.

4. Click the property for which you would like to add the list of enumerated values.

The attributes of the property appear to the right.

5. Click the drop-down arrow for the Enumerator, and select **Enumeration List**.



6. Click the **Properties** button. Note: the button will only be enabled for a property of data type text.

The Enumerated List Properties dialog appears.

7. Click the **Add Value** button.

A blank item appears in the list.

8. Enter a value.

9. Click **Add Value** to add another value, or **OK** to close the dialog.

The values you entered will appear in a drop-down list in the table.

## Editing an Enumerated Values List

To edit an enumerated values list:

1. In the Collection Tree, right-click the section type to you wish to configure.

2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click the table field in the list of fields, and select **Field Properties** from the menu that appears.

The Field Properties dialog appears.

4. Click the property whose values you wish to edit.

The attributes of the property appear to the right. Enumeration List is displayed as the type of Enumerator.

5. Click the **Properties** button under the Enumerator.

The Enumerated List Properties dialog appears:

6. Click any of the values to edit it, or click **Remove Value** to delete it. To move a value up or down in the list, click the **Move Value Up** or **Move Value Down** button, respectively.

7. Click **OK** to close the dialog.

## Managing Table Listeners

Table listeners are used to modify the behavior of E-Notebook tables. E-Notebook provides several, standard table listeners.

See Managing Field Listeners for instructions on associating a field listener with a field.

### *Managing the Reactants Table Listener*

The reactants table listener calculates and displays properties of reactants in a stoichiometry grid. The table can be combined with a products field (a table field with the products table listener) to create a stoichiometry grid. The combination of the stoichiometry grid with a chemical structure field, and the addition of the Reaction Form Tool creates a Reaction Section.

Reaction Sections allow users to draw a reaction in the chemical structure field, and then analyze the reaction, automatically populating the stoichiometry grid with information about the reactants and products. In addition, the Next Step function creates a new page or experiment containing the products of the chemical reaction.

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Reactants	ENStandardCtd9.ReactantsListener

### *Managing the Products Table Listener*

The products table listener calculates and displays properties of products in a stoichiometry grid. The table can be combined with a reactants field (a table field with the reactants table listener) to create a stoichiometry grid. The combination of the stoichiometry grid with a chemical structure field, and the addition of the Reaction Form Tool creates a Reaction Section.

Reaction Sections allow users to draw a reaction in the chemical structure field, and then analyze the reaction, automatically populating the stoichiometry grid with information about the reactants and products. In addition, the Next Step function cre-

ates a new page containing the products of the chemical reaction.

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Products	ENStandardCtd9.ProductsListener

### *Managing the Products Fixed Limiting Table Listener*

This listener is similar to the Products Table Listener. The difference is that the limiting equivalents cannot vary if the Products Fixed Limiting listener is used. .

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Products Fixed Limiting	ENStandardCtd9.FixedLimitingEqProducts

### *Managing the Add Reactant Table Listener*

The Add Reactant Table Listener makes it possible for a user to populate the stoichiometry grid with the properties of a reactant he selects from the Collection Tree. The user does this by right-clicking within the table and selecting Add Reactant from the menu that appears.

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Add Reactant	ENReaction9.AddReactant-TListener

### *Managing the Reactants Fixed Limiting Table Listener*

This listener is similar to the Reactants Table Listener. The difference is that the limiting equivalents cannot vary if the Reactants Fixed Limiting listener is used.

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Reactants Fixed Limiting	ENReaction9.FixedLimitingEqReactants

### *Managing the Block Reference In State Table Listener*

The Block Reference In State Table Listener may be used to block users from adding a reference to a specific type of collection that is in a particular state. If the listener is configured to block the reference, the user will be unable to add the reference to the table. For example, you may wish to prevent users from adding table references to pages/experiments that are in an archived state.

<b>Table Listener</b>	<b>IENTableListener ProgID</b>
Block Reference In State	ENStandardCtl9.BlockRefIn-StateTListener

This table listener has custom properties associated with it. You must select the collection type and state corresponding to the references that will be blocked. In the example below, a user will be prevented from adding a reference to an “Ancillary File Version” collection that is in the “Draft” state.

Note that you may associate multiple instances of this listener with a table, if you would like to prevent users from adding references to several different collection types and/or several different states of a collection type.

### *Managing the Validate Value Table Listener*

The Validate Value Table Listener allows you to validate a values of a property in a table against an external database, to ensure the values entered into E-Notebook are valid. If a user enters a value that is not valid, he will be presented with an error message to that effect.

<b>Table Listener</b>	<b>IENPropertyListListener ProgID</b>
Validate Value	ENStandardCtl9.ValidateValueTListener

Clicking the Properties button after adding the listener to a table displays the following dialog. Here, you select the property to be validated from the Property drop-down list. Then, enter the database connection information and the SQL string to be used for validating the value.

### *Managing the Analyze Reaction Table Listener*

The Analyze Reaction Table Listener automatically updates the reactants and products tables in a stoichiometry grid when a user edits a reaction drawing. This listener must be associated with both the Reactants table field and the Products table field. In addition, you must associate the Analyze Reaction Chemical Structure Listener with the reaction field.

<b>Active Document Listener</b>	<b>IENActiveDocListener ProgID</b>
Analyze Reaction	ENStandardCtl9.AnalyzeReactionTListener

This listener has no custom properties associated with it.

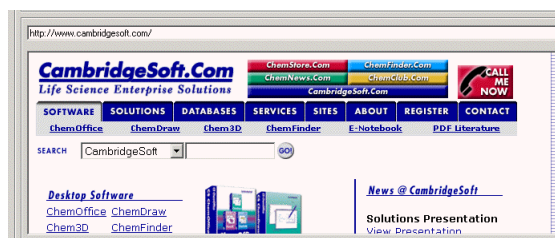
## Managing the Unique Property Table Listener

The Unique Property Table Listener prevents adding more than one property of the same type to a table.

Table Listener	IENPropertyListListener Progid
Unique Property	ENStandardCtl9.UniquePropertyTListener

## Managing URL Display Fields

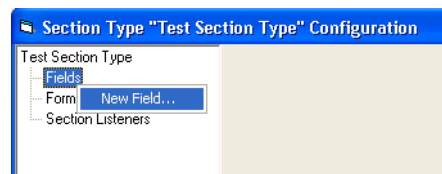
URL Displays make it possible for users to store URL's within E-Notebook and to display their corresponding content. You may use a URL Display Field for either an internal intranet site or an external webpage.



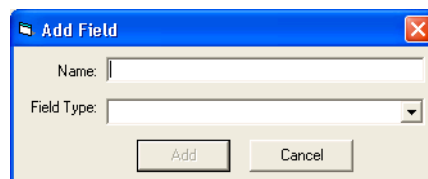
To create a URL Display field:

1. In the Collection tree, right-click the Section Type to which you wish to add the field.
2. Select Section Type Configuration from the menu that appears.  
The Section Type Configuration dialog appears.
3. Right-click Fields, and select New Field.

The Add Field dialog appears.



4. Enter a name for the Field and select URL Display from the list of Field Types.



5. Click Add.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See "Configuring a Form" on page 655 for more information.

After you have added the URL Display Field to a form, you may enter a URL and display its corresponding page. Each time a user creates a section of this type, the URL and its content will appear.

To do this:

1. Enter the URL address as shown above. In this example, <http://www.cambridgesoft.com> was entered.
2. Click the Go button to the right of the address.

The page corresponding to the URL appears.

You may navigate from within the displayed page, if desired. Note, however, that the URL does not change to reflect your navigation. If you wish to change the URL that is saved with the section type, you must type in another address.

## Managing Search Fields

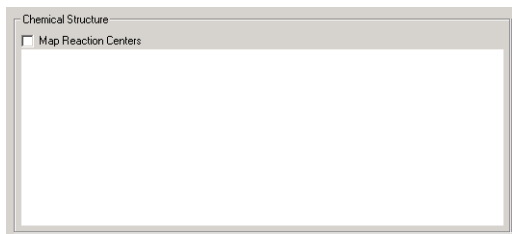
Several field types are designed for use exclusively within search forms, to search for data in E-Notebook. They are:

- Chemical Query Fields
- Collection Query Fields
- Collection Type Query Fields
- Query Text Fields
- State Query Fields
- Property Query Fields
- Table Query Fields
- Unannotated Version Query Fields
- Search Location Fields
- Join Type Fields

See Managing Data Fields for information about the other E-Notebook Fields.

### Chemical Query Fields

Chemical Query Fields are used in search forms, for finding chemical structures in E-Notebook tables and chemical structure fields.



The search is a substructure search. See the User Guide if you would like more information on structure searching.

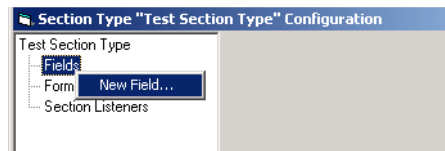
To create a Chemical Query Field:

1. In the Collection tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

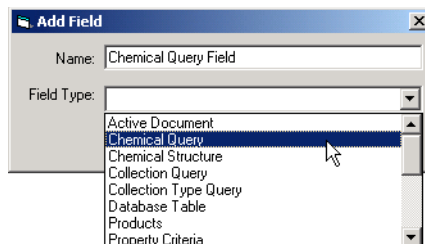
The Section Type Configuration dialog appears.

3. Right-click Fields, and select **New Field**.

The Add Field dialog appears.



4. Enter a name for the field and select **Chemical Query** from the list of field types.



5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

### Collection Query Fields

Collection Query Fields are used in search forms, for finding collections that match the metadata criteria that a user specifies:



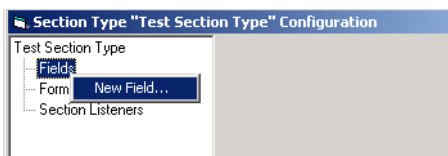
Users must select each of the criteria they wish to specify for the search.

To create a Collection Query Field:

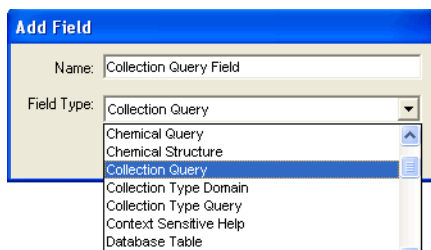
1. In the Collection tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.  
The Add Field dialog appears.



4. Enter a name for the field and select Collection Query from the list of field types.



5. Click Add.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Collection Type Query Fields

Collection Type Query Fields are used in search forms, for specifying the collection type over which a search is run. For example, a user may specify a Page, or an Experiment, so that any other type of collection will not be included in the search results.



Users must select this item in the search form in order to specify it for the search.

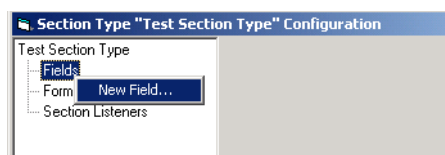
To create a Collection Type Query Field:

1. In the Collection tree, right-click the section type to which you wish to add the field.

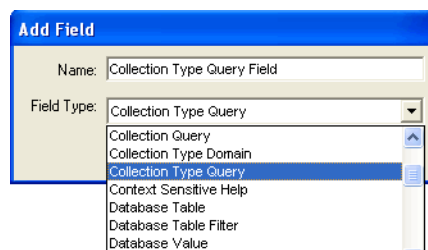
2. Select Section Type Configuration from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click Fields, and select New Field.  
The Add Field dialog appears.



4. Enter a name for the field and select Collection Type Query from the list of field types.



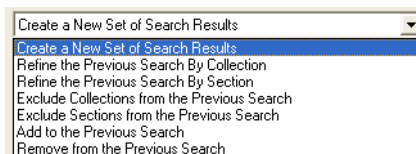
5. Click Add.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Join Type Fields

Join Type fields are used in search forms. They make it possible for a users conduct a search that is a union of two searches, an intersection of two searches, or a subtraction of one set of search results from another. A join field is shown below:



To create a join type field:

1. In the Collection tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.  
The Add Field dialog appears.
4. Enter a name for the field and select **Join Type** from the list of field types.
5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Property Query Fields

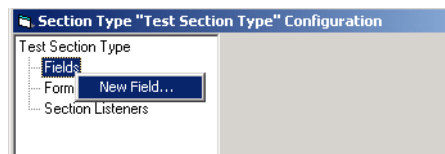
Property Query Fields are used in search forms. They make it possible for a users to search for specific properties in E-Notebook property lists. (Note that Table Query Fields are used to search for properties in E-Notebook tables).

Property List Query				
Property	Value	Data Type	Field	Section Type
Molecular Formula		text	Properties	Acronym

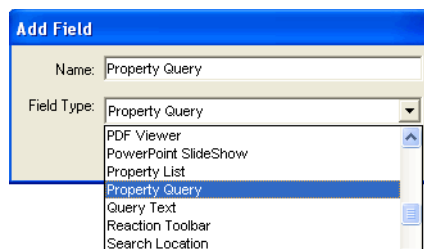
To create a Property Query Field:

1. In the Collection tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.  
The Section Type Configuration dialog appears.
3. Right-click **Fields**, and select **New Field**.

The Add Field dialog appears.



4. Enter a name for the field and select **Property Query** from the list of field types.
5. Click **Add**.



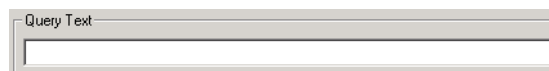
The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Query Text Fields

Query Text Fields are used in search forms. The following fields data in E-Notebook is searched when a user runs a search that contains query text:

- MS Word Fields
- Styled Text Fields
- Property Lists
- Tables
- Text in chemical structure fields
- MS Excel Fields
- Certain types of stored document files — MS Word, MS Excel, MS PowerPoint

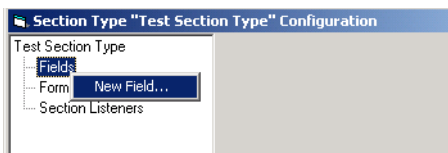


To create a Query Text Field:

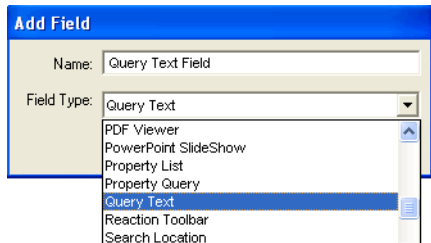
1. In the Collection tree, right-click the Section Type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.  
The Add Field dialog appears.



4. Enter a name for the field and select **Query Text** from the list of field types.



5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## State Query Fields

State Query Fields are used in search forms. They make it possible for a user to specify the state of the collections over which a search is conducted. For example, a user may only want to search for Collections that were in the Closed state as of a particular date.

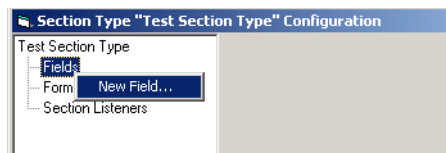
☒ State Name contains Completed as of 3/28/2003

To create a State Query Field:

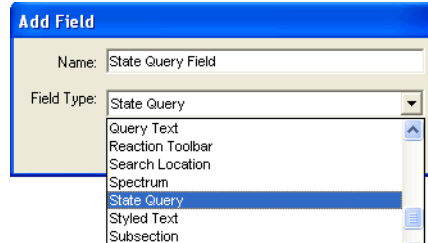
1. In the Collection Tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.  
The Add Field dialog appears.



4. Enter a name for the field and select **State Query** from the list of field types.



5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Table Query Fields

Table Query Fields are used in search forms. They make it possible for a users to search for specific properties in E-Notebook tables. (Note that Property Query Fields are used to search for properties in E-Notebook property lists).

Table Query				
Property	Value	Data Type	Field	Section Type
Total Volume		volume	Solvents	Reaction



To create a Table Query Field:

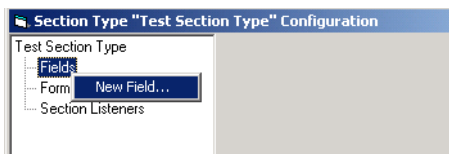
1. In the Collection tree, right-click the Section Type to which you wish to add the field.

2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field...**

The Add Field dialog appears.



4. Enter a name for the field and select **Table Query** from the list of field types.



5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Unannotated Version Query Fields

Unannotated Version Query Fields are used in search forms. They make it possible for a users to search for collections in which changes that

required annotation have been made, but for which no annotation has been provided.



To create an unannotated version query field:

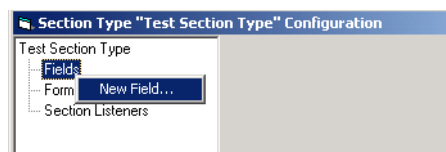
1. In the Collection Tree, right-click the section type to which you wish to add the field.

2. Select **Section Type Configuration** from the menu that appears.

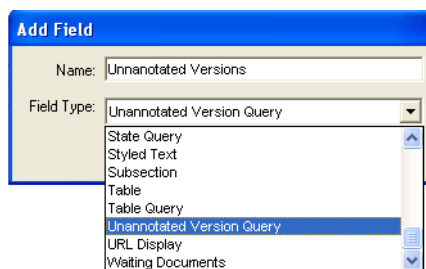
The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field...**

The Add Field dialog appears.



4. Enter a name for the field and select **Unannotated Version Query** from the list of field types.



5. Click **Add**.

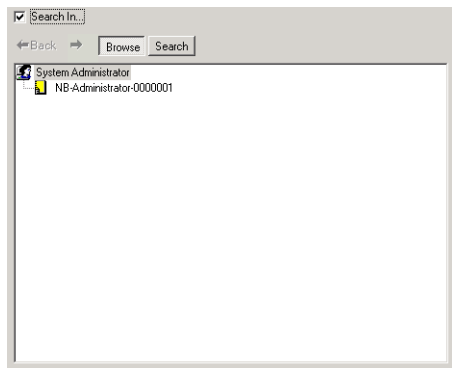
The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Search Location Fields

Search Location Fields are used in search forms. They make it possible for a users to search

for collections and sections that exist in a particular branch of the Collection Tree.



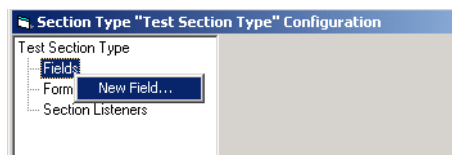
To create a search location field:

1. In the Collection tree, right-click the section type to which you wish to add the field.
2. Select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears.

3. Right-click **Fields**, and select **New Field**.

The Add Field dialog appears.



4. Enter a name for the field and select **Search Location** from the list of field types.



5. Click **Add**.

The new field appears in the list of fields.

Once you have added a field to the section type, you may add it to the form for the section type. See “Configuring a Form” on page 655 for more information.

## Managing the Add-In Configuration

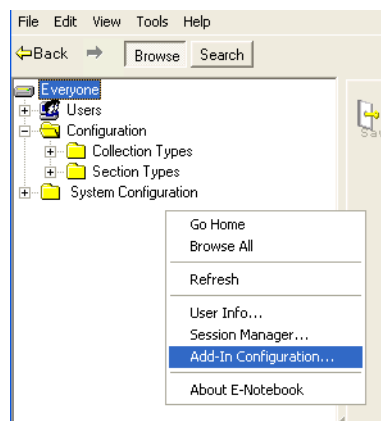
The Add-In Configuration dialog contains information about the field types that are used as the basis for fields in E-Notebook. E-Notebook provides a number of standard field types, such as Chemical Structure and Table field types, but you can also develop custom field types to manage specialized kinds of data or perform complex tasks.

For information about each of the standard types of fields and their properties, see “Managing Data Fields” on page 685.

To access the Add-In Configuration and view or edit the E-Notebook field types,

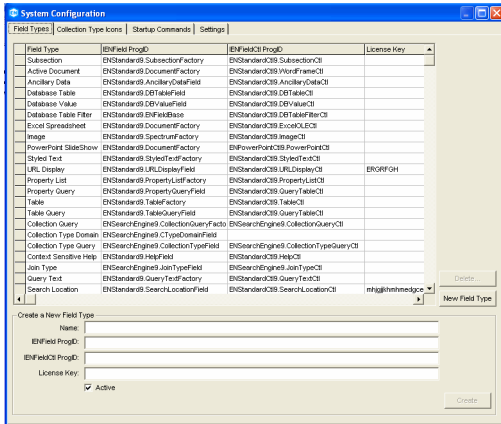
1. Right-click any blank area of the Collection Tree.

A menu appears.



2. Select **Add-In Configuration**.

The System Configuration dialog appears.



This dialog displays the following information about each of the Field Types:

- **Field Type** – the name of the field type
- **IENFormTool ProgID** – the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is `OleServerName.ObjectName`.
- **IENFormToolCtl ProgID** – the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is `OleServerName.ObjectName`.
- **License Key**
- **Active** – an indication of whether new fields of this type may be added to section types

## Changing a Field Type

To change the information for a particular field type:

1. Click the field type in that you wish to edit in the list.  
The field type is highlighted.
2. Edit any of the information for the field type, changing its name, ProgID's, license key, or active status.

3. Click the Change button.

Your changes are saved.

## Adding a new Field Type

To add a new field type to E-Notebook:

1. From the Add-In Configuration dialog, click the New Field Type button.
2. Fill in the following information:
  - **Field Type** – the name of the Field Type
  - **IENFormTool ProgID** – the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is `OleServerName.ObjectName`.
  - **IENFormToolCtl ProgID** – the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is `OleServerName.ObjectName`.
  - **License Key** – if necessary.
  - **Active** – an indication of whether new fields of this type may be used in section types. If the checkbox is selected, the field type is active.

## Deleting a Field Type

You may only delete field types that are not in use within E-Notebook section types.

To delete a field type:

1. From the Add-In Configuration dialog, click the field type in that you wish to delete.

The field type is highlighted.

2. Click the Delete button.

A message appears, asking you to confirm that you wish to delete the field Type.

3. Click Yes.

If the field type is not used in an E-Notebook section type, it is deleted. Otherwise, an error message appears, notifying you that the field type is in use and cannot be deleted.

## Time Settings

Whenever a date or time is displayed in E-Notebook, it is displayed with a time zone bias from UTC (Coordinated Universal Time). The format of the time zone bias is +HHMM. The plus sign indicates time zones that are east of UTC to the international date line by a specified number of hours and minutes (Paris to Auckland and beyond); a minus sign indicates time zones that are west of UTC to the international date line (Azores to Midway Island, and beyond).

Dates appear in the following locations:

- The history display
- The collection properties dialog box
- The version properties dialog box
- The session manager dialog box
- The properties field type control
- The tables field type control
- The query table field type control
- The collection query field type control
- The state query field type control
- The table of contents

In the history display, the collection properties dialog box, the version properties dialog box and the session manager dialog box, dates are displayed using the time zone of the client machine that generated the date. For example, the time of a version is displayed in the time zone of the user who saved the version; the time of an annotation is displayed in the time zone of the user who created the annotation.

In the properties and tables field type controls, when a user is about to edit a date, the date to be edited is changed to the corresponding time stamp

of the editing user's time zone. For example, User A in New Jersey enters a date of June 1, 2004 12:00:00 PM in a date property in a property list. After editing, the date appears as "06-01-2004 12:00:00 PM -0500". User B in New Jersey views the property list with the saved date and the date appears the same. If User B decides to edit the date, then, when the edit controls appear, the edit controls are initialized with the date 06-01-2004 09:00:00 AM. If the user makes no changes, then the value does not change. If the user changes the time to 09:00:01 AM, then the date appears in the property list as "06-01-2004 09:00:01 AM -0800". When user C in London views the date, it will appear as "01-06-2004 09:00:01 AM -0800" because user C's date settings on their client machine specify that days appear before months in short dates.

In the query table field type control, the collection query field type control and the state query field type control, only the date is specified, along with a time zone. When searching, the dates are converted to UTC using the time zone associated with the date. The time zone appears in a popup menu next to the date. In the event of editing a section containing one of these field types, if the stored time zone is different from the time zone of the client machine, the popup menu will contain the time zone of the client machine as well, so that the user can change the query to match the time zone of the client machine.

Queries by date compare the 24 hour period that conforms to the date specified by time zone associated with the query date. For example, if a user in California searches for date properties with a value of "06-01-2004 -0800" then any date property with a value between 06-01-2004 08:00:00 AM +0000 and 06-02-2004 07:59:59 AM +0000 (inclusive) matches that date, wherever it was entered in the world.

In the Table of Contents, only dates appear, with no time zone reference. The date corresponds to

the date in the time zone of the generator of the date.

## Managing Units in Property Lists and Tables

You may associate the following types of measurements with a property in a property list or table. The units may then be specified or displayed in the several units shown. Note that in all cases, the standard units are the SI units for the given type, which may not be the units commonly entered or displayed.

Type of Measurement	Standard Units	Permitted Units
density	kg/m3	g/ml µg/ml mg/ml µg/l mg/l g/l kg/l kg/m3
length	m	m Å nm µm mm cm
mass	kg	g µg mg kg

Type of Measurement	Standard Units	Permitted Units
molality (quantity per mass of solvent or substrate)	mol/kg	mol/kg mol/g mmol/kg mmol/g µmol/kg µmol/g
molar mass	kg/mol	g/mol kg/mol dalton D kD
molarity (quantity per volume of solu- tion)	mol/m3	mol/l µmolar mmolar molar
moles (quantity of substance)	mol	mmol µmol mol
normality (ion equivalents per volume of solution)	mol/m3	N mN µN
pressure	Pa	atm Pa kPa torr bar mbar

Type of Measurement	Standard Units	Permitted Units
temperature	K	°C °K °F
time	s	s ms μs min hr
velocity	m/s	m/s km/hr mi/hr
volume	m <sup>3</sup>	ml μl l m <sup>3</sup>

## Specification of Units

To specify the units for a property in a property list or table:

1. In the Section Type Configuration dialog, right-click the field containing the property whose units you wish to set.
2. Select Field Properties from the menu that appears.  
The properties dialog appears.
3. Click the property in the tree to select it.  
The attributes of the property are displayed.  
The Units list will be disabled if the Type is text, number, date, or structure. Otherwise, its contents will change to reflect the permitted units for the unit type you have selected. The

default selection in the units list will be the first units in the list, which will be ordered as in the table above.

4. Select the default Units from the Units drop-down list.

These are the units that will be displayed by default when a user enters only a numerical value into the cell.

## Entry of data

When a user enters a value for a property list entry or table cell which has been defined as a type that has units, the text is interpreted as follows:

- Leading and trailing spaces are removed.
- A trailing period, if present, is removed.
- If a hyphen, dash, or minus sign is present and not the first character of the string, the string is deemed to represent a range, and divided into the part before and the part after the first such character. Spaces surrounding the character are discarded. Each string is further interpreted according to the subsequent rules.
- The string is tested iteratively, beginning with the entire string, and truncating one character off the end during each iteration, until a string is found which is determined to be numeric, as defined by the Visual Basic `IsNumeric` function. If no such leading numeric substring is found, the string is deemed uninterpretable.
- The remaining part of the string after removing the leading numeric substring and any contained spaces is compared against the list of units permitted for this type. If this string is not empty, and a match is not found, the string is deemed uninterpretable.
- If the string was found to consist of a range, and a valid units designation was found only for the second element of the range, that units designation is used for both elements.
- If no units designation is present, then the default units designation is applied.

Note that all measurements described in this topic are stored in an E-Notebook property lists or

tables. This topic does not apply to quantities in text fields.

# Chapter 39: Managing Collection Types

Information in E-Notebook is organized into collections, which are the items that appear in the collection tree. When a user creates a collection, the properties and content of the collection are determined by the collection type, which you configure as an administrator.

You may configure a collection type such that any of the following are associated with it:

**Section Types** – collection types may be configured so that they contain section types, which are the E-Notebook data forms. A page or experiment is an example of a collection type that contains section types. Alternatively, a collection type—for example, a folder—may not have section types associated with it, but may simply contain other collection types.

**Contained Collection Types** – A contained collection is a collection that may exist within a particular collection in the collection tree. For example, a user group may contain users; user is a contained collection type within the user group collection type. Or, notebooks may contain experiments; experiment is a contained collection type within the notebook collection type.

**Contained Reference Types** – A contained reference is a shortcut that allows E-Notebook users to view a collection from elsewhere in the collection tree. Any changes made to the original are reflected in the reference.

**States** – a state is a condition that defines certain properties of a collection, such as whether the collection may be edited. Multiple states may be used to define the life cycle of a collection. You may configure change control options based on state.

**Search Engines** – A search engine allows users to search for information in E-Notebook. For example, the collection search engine makes it possible

to search for collections that match certain meta-data criteria, such as creation date and owner.

**Collection Listeners** – collection listeners modify behaviors of collections, such as the move or create behaviors. An example is the User Collection Listener, which displays a dialog for entry of UserID, user name, etc., when a new user is created.

**Form Tools** – form tools perform a certain function when a user selects them—for example, creating a new collection or a new section.

## Creating a New Collection Type

Collections organize related information in E-Notebook, and each collection appears as an item in the Collection Tree. When you create a new collection type, you create a new means of organizing information in E-Notebook. For example, you could create a collection type of Project or Experiment. E-Notebook Users would then be able to use these Projects or Experiments to organize their information in E-Notebook.

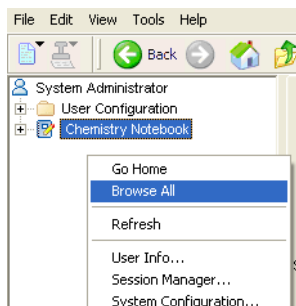
When you create a new collection type, you define the rules that determine which sections users can add to collections of this type. Also, you set up the rules that govern how the collection type is related to other collection types in the Collection Tree: where can a new collection of this type be created, and what types of collections can be created within it? You can set up the rules that are modeled after your workflow.

To create a new collection type:

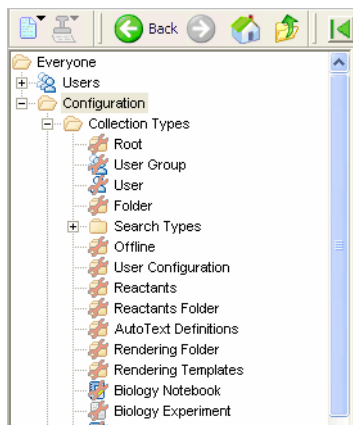
1. Right-click a blank area of the Collection Tree. A menu appears.



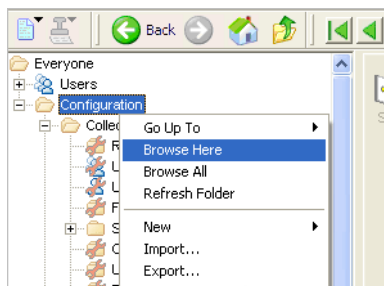
2. Select **Browse All**.



The entire Collection Tree appears, showing the Configuration Folder.



3. If you wish, you may right-click the Configuration Folder and select **Browse Here**, so that the Configuration Folder will appear at the top of the Collection Tree.



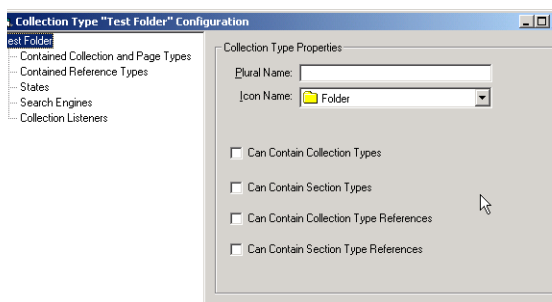
4. Right-click the Collection Types folder and select **New**, then **Collection Type**.

A new Collection Type appears within the Collection Types folder, and you are prompted to rename it.

5. Enter a name for the Collection Type.

6. Right-click the new Collection Type and select **Collection Type Configuration**.

The Collection Type Configuration Dialog appears.



7. Specify the following information:

- **Plural Name** – the name applied to multiple collections of this type.
- **Icon Name** – the icon to be associated with the collection type in the Collection Tree.

8. If you would like the collection type to be used as an organizational tool for administrators, you may select any of the following options. Normally these options are not selected for new collection types. In the default E-Notebook setup, only Folders, such as the Collection Types folder, may contain collection types and section types.

- **Can Contain Collection Types** – a check mark indicating whether administrators may add collection types to this collection type.
- **Can Contain Section Types** – a checkbox indicating whether administrators may add section types to this collection type.

- **Can Contain Collection Type References** – a checkbox indicating whether new administrators may add references (shortcuts) to collection types to this collection type.
- **Can Contain Section Types** – a checkbox indicating whether administrators may add references (shortcuts) to section types to this collection type.

Once you have created the collection type, you will want to configure it. See the related topics for instructions.

## Adding a Section Type to a Collection Type

By adding sections types to a collection type, you determine which sections an E-Notebook user can add to that collection type in E-Notebook. For example, an Experiment/Page may have several section types associated with it, including reaction sections or MS Word sections. When a user creates an Experiment/ Page, he may add any of these sections to the Experiment/Page.

You may configure a collection type such that a particular section appears by default, or, you may configure it so that the user can add the section if desired.

To add a section type to a collection type:

1. Right-click the collection type to which you wish to add the section type, and select **Collection Type Configuration** from the menu that appears.  
The Collection Type Configuration dialog appears.
2. Expand **Form Tools**, and right-click the **New Section Form Tool**.

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**NOTE:** *It may be necessary for you to add this form tool to the collection type. See “Managing the New Section Form Tool” on page 650 for more information).*


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3. In the right frame, click the **Custom Properties** button.  
A dialog appears, listing all of the section types in the left panel.
4. Click the section type(s) you wish to add. You may use **CONTROL+click** to select multiple section types, or **SHIFT+click** to select a range.
5. Click the **Add>>** button.  
The section type(s) are moved into the right panel.
6. Click the **Close** button.

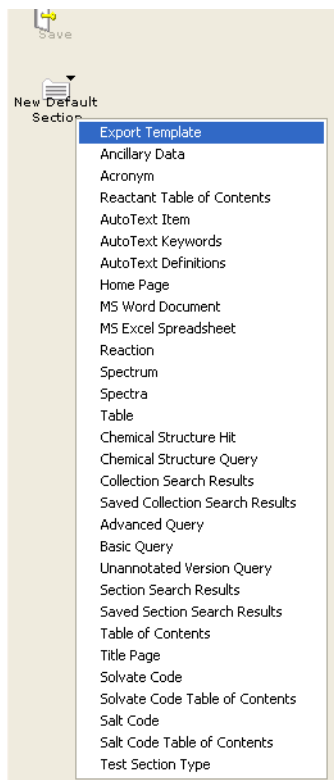
The Section Types dialog closes. The section type(s) are added to the collection type. When a user creates the collection in E-Notebook, he will be able to add these sections to it.

## Having a Section Appear by Default

If you would like a section to appear automatically when a user creates the collection:

1. Click the New Default Section  button in the right frame.

A menu appears, listing all of the E-Notebook section types.



2. Select a section type from the list.  
The section appears.
3. If you wish, you can add data to the section, or change the appearance of the section. The alterations you make will appear only when an E-Notebook user creates this particular type of collection.

## Removing a Section Type from a Collection Type

If you no longer wish to include a particular section type in a collection type, you can remove the section type.

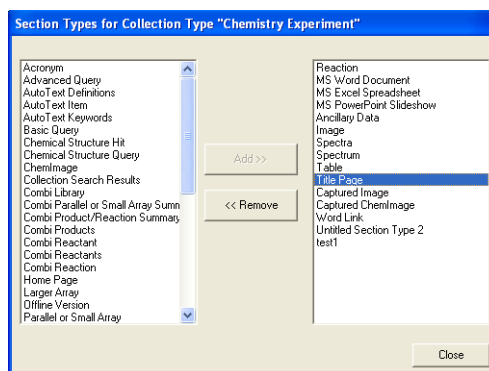
To do this:

1. Right-click the collection type from which you wish to remove the section type, and select Collection Type Configuration from the menu that appears.

The Collection Type Configuration dialog appears.

2. Expand Form Tools, and right-click the New Section Form Tool.
3. In the right frame, click the Custom Properties button.

A dialog appears, listing of the section types in the right panel.



4. Click the section type(s) you wish to remove.  
You may use CONTROL+click to select multiple section types, or SHIFT+click to select a range.
5. Click the Remove>> button.  
The section types are moved to the left pane.
6. Click the Close button.  
The dialog closes, and the section type can no longer be added to the collection type.

**NOTE:** If you have added the section to the collection type, so that the section will appear automatically in E-Notebook when a user creates the collection, you must delete the existing section from the collection type.

# Managing Contained Collection Types

Contained collection types are collections that may exist within a particular collection in the Collection Tree. For example, a user group may contain users; user is a contained collection type within the user group collection type. Or, notebooks may contain experiments; experiment is a contained collection type within the notebook collection type.

This topic covers adding and removing contained collection types, and changing the relationship between a contained collection type and the parent collection type.

## Adding a Contained Collection Type

To add a contained collection type to a collection type.

1. In the Collection Tree, right-click the collection type that is to be the parent collection and select Collection Type Configuration.

In this example, user group is the parent collection type, and we are adding the ability to create folders—the contained collection type—within user groups.

The Collection Type Configuration dialog appears.

2. Right-click Contained Collection and Page Types.

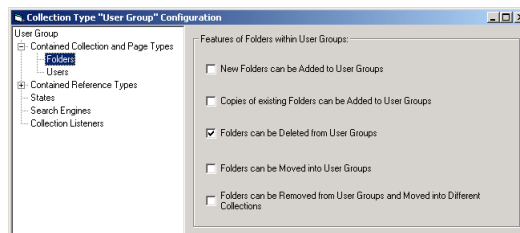
A menu appears with the option New Contained Collection or Page Type.

3. Select New Contained Collection or Page Type.

A dialog box appears, listing the collection types in E-Notebook (and their corresponding templates).

4. Click the collection type you wish to add, and click the Add button.

5. The new contained collection type appears in the left pane. In the right pane, the features of the contained collection type within the parent (or container) collection are displayed.



For example, if the contained Collection is the child within the parent collection:

- New children can be added to parents.
  - Copies of existing children can be added to parents.
  - Children can be deleted from parents.
  - Children can be moved into parents.
  - Children can be removed from parents and moved into different collections.
6. Click the checkboxes to select the features you wish to apply to the contained collection type.

## Changing the Relationship between a Contained Collection Type and the Parent Collection Type

To change the relationship between a contained collection type and its parent collection type:

1. In the collection tree, right-click the parent collection type and select Collection Type Configuration.  
The collection type configuration dialog appears.
2. Click the plus sign to expand the contained collection types.
3. Click the contained collection type for which you wish to change the relationship.  
The relationship features appear to the right.

4. Select or deselect the features as desired.
5. Click the Close button in the upper right corner to close the Collection Type Configuration dialog.

## Removing a Contained Collection Type from a Collection Type

If you wish to remove a contained collection type:

1. In the Collection Tree, right-click the parent collection type and select Collection Type Configuration.
- The collection type configuration dialog appears.
2. Click the plus sign to expand the contained collection types.
  3. Right-click contained collection type you wish to remove, and select **Delete Relationship** from the menu that appears.



A message appears, asking you to confirm that you wish to delete the relationship.

4. Click Yes.

The contained collection type is deleted. Note that this change will not affect the relationships that users have already created. It will only apply going forward.

## Managing Contained Reference Types

You can set up a collection type to permit users to add references to other collection types. A con-

tained reference type differs from a contained collection type, because a reference is a shortcut that allows an E-Notebook user to view an original from elsewhere in the Collection Tree. Any changes made to the original are reflected in the reference.

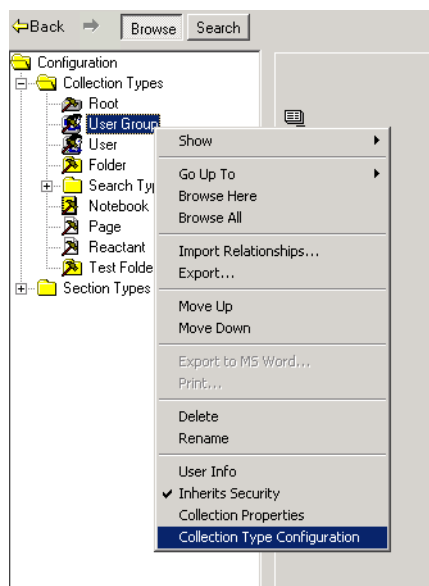
This topic covers adding and removing contained reference types, and changing the relationship between a contained reference type and the parent collection type.

## Adding a Contained Reference Type

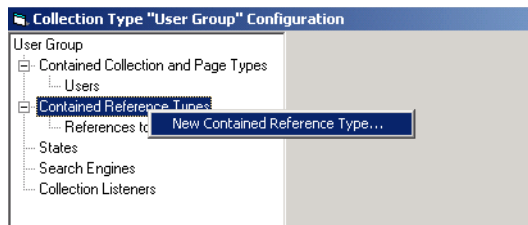
To add a contained reference type to a collection type:

1. In the Collection Tree, right-click the collection type that is to be the parent collection type and select Collection Type Configuration.

In this example, user group is the parent collection type, and we are adding the ability to create references to folders—the contained reference type—within user groups.



The Collection Type Configuration dialog appears.



2. To expand the collection type to which you wish to add a contained reference type, either double-click it or click the plus sign next to it.
3. Right-click **Contained Reference Types**.  
A menu appears with the option **New Contained Reference Type**.
4. Select **New Contained Reference Type**.  
A dialog box appears, listing the collection types in E-Notebook (and their corresponding Templates).
5. Click the collection type you wish to add as a contained reference type, and click the **Add** button.
6. The new contained reference type appears in the left pane. In the right pane, the features of the contained reference type within the parent collection are displayed. For example, if the contained reference is the child within the parent collection:

- New references to children can be added to parents.
- Copies of existing references to children can be added to parents.
- References to children can be deleted from parents.
- References to children can be moved into parents.
- References to children can be removed from parents and moved into different collections.

7. Click the checkboxes to select the features you wish to apply to the contained reference type.

## Changing the Relationship between a Contained Reference Type and the Parent Collection Type

To change the relationship between a contained reference type and its parent collection type:

1. In the Collection Tree, right-click the parent collection type and select **Collection Type Configuration**.  
The Collection Type Configuration dialog appears.
2. Click the plus sign to expand the contained reference types.
3. Click the contained reference type for which you wish to change the relationship.  
The relationship features appear to the right.
4. Select or deselect the features as desired.
5. Click the **Close** button in the upper right corner to close the Collection Type Configuration dialog.

## Removing a Contained Reference Type from a Collection Type

If you wish to remove a contained reference type:

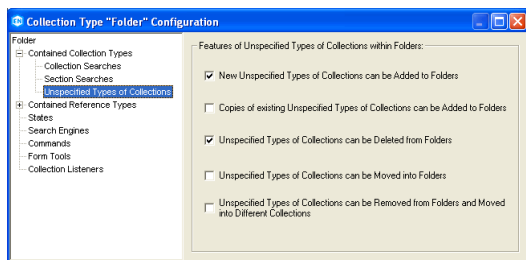
1. In the Collection Tree, right-click the parent collection type and select **Collection Type Configuration**.  
The Collection Type Configuration dialog appears.
2. Click the plus sign to expand the contained reference types.
3. Right-click the contained reference type you wish to remove, and select **Delete Relationship** from the menu that appears.  
A message appears, asking you to confirm that you wish to delete the relationship.

#### 4. Click Yes.

The contained reference type is deleted. Note that this change will not affect the relationships that users have already created. It will only apply going forward

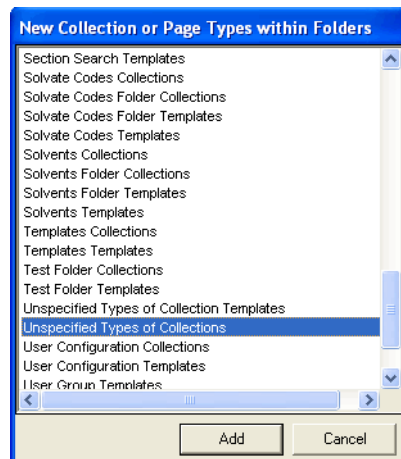
## Configuring Relationships to Unspecified Types of Collections

E-Notebook has an “Unspecified Types of Collections” feature that you can use to configure the relationship between a container collection type and any collection type for which no relationship is explicitly defined. For example, if you add “Unspecified Types of Collections” as a contained collection type within a Folder collection type, the relationship you define will apply to all of the E-Notebook collection types, excluding collection types for which an individual relationship is set up. In the example below, users will be able to add or delete any type of collection from a Folder. The features of Reactant collections within Folders may be different, however, because this relationship is defined separately:



“Unspecified Types of Collections” and “Unspecified Types of Template” appear in the list of col-

lection types when you add a new contained collection type or contained reference type.



## Managing Collection Listeners

Collection listeners modify the behaviors of collections—such as the creating, hiding, renaming, duplicating, and moving behaviors. E-Notebook provides several, standard collection listeners that you may associate with collection types.

You may also develop your own, customized collection listeners to perform additional functions.

## Adding a Collection Listener to a Collection Type

You can associate a collection listener with a collection type if you would like a particular function to occur when a user takes an action on a collection. For example, if you create a new user and the user collection listener is associated with the user collection type, a dialog will appear prompting you to enter a LoginID and other pertinent information.

See “Managing the Standard Collection Listeners” on page 741 for information about the various collection listeners that E-Notebook provides.

To add a collection listener to a collection type:


1. Right-click the collection type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.

2. Right-Click Collection Listeners and select **New Collection Listener** from the menu that appears.

A new collection listener appears and you are prompted to rename it.

3. Type in a name for the collection listener.
4. Enter the IENCollectionListener ProgID for the Listener you wish to add. (This is the programmatic identifier that the Windows registry uses to uniquely identify the object that implements the corresponding interface. The format is OleServerName.ObjectName).

The collection listener is associated with the collection type.

5. To close the Collection Type Configuration dialog, click the close button  in the upper right corner.

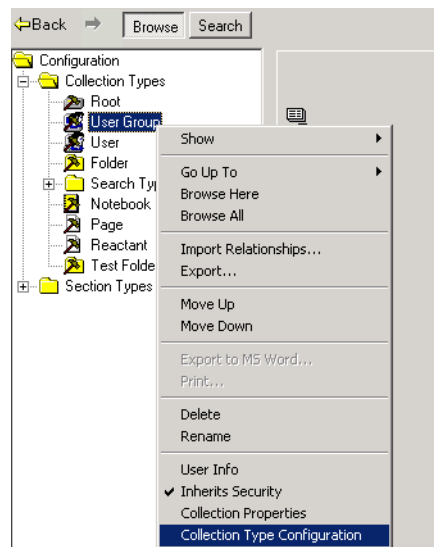
The dialog closes.

## Viewing and Editing the Properties of a Collection Listener

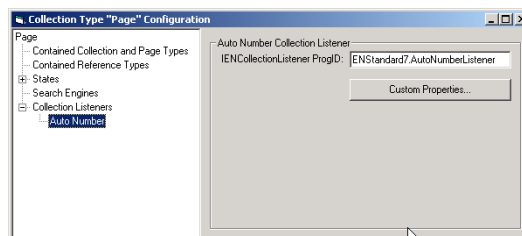
You can view and edit the custom properties that you may be associated with a collection listener.

To do this:

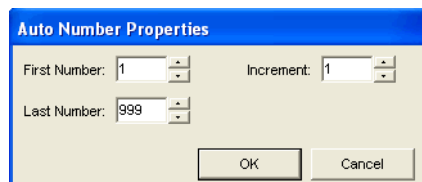
1. Right-click the collection type that contains the listener in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.



The Collection Type Configuration dialog appears.



2. If necessary, click the plus sign next to Collection Listeners to view the collection listeners that are associated with this collection type. Click the collection listener whose properties you wish to view or edit.
3. Click the Custom Properties button.





The collection listener properties dialog appears. This example shows the properties dialog for the Auto Number Listener, which is one of the standard E-Notebook collection listeners. (Note that if the collection listener has no custom properties associated with it, a message to that effect will appear when you click the Custom Properties button).

4. Edit the properties, if you wish.
5. Click OK to close the properties dialog.
6. To close the Collection Type Configuration dialog, click the close button in the upper right corner.

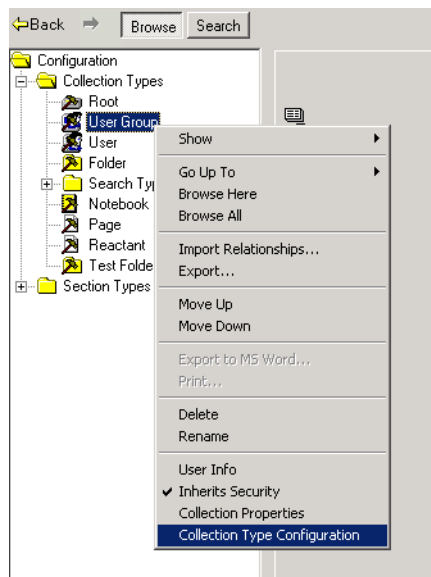
The dialog closes and your changes are saved.

## Removing a Collection Listener from a Collection Type

If you no longer want a particular collection listener to be associated with a collection type, you can remove it from the collection type.

To do this:

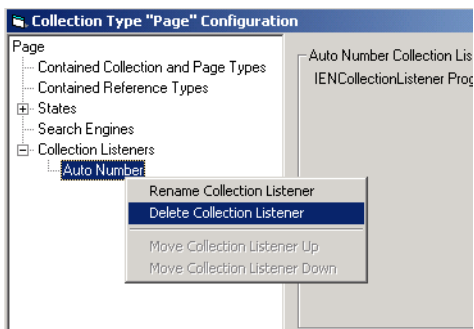
1. Right-click the collection type that contains the listener in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.



The Collection Type Configuration dialog appears.

2. If necessary, click the plus sign next to Collection Listeners to view the collection listeners that are associated with this collection type.
3. Right-click the collection listener you wish to remove from the collection type.

A menu appears.



4. Select **Delete Collection Listener**.

A message appears, asking you to confirm that you wish to delete the collection listener.

5. Click **Yes**.

The collection listener is removed from the collection type.

6. To close the Collection Type Configuration dialog, click the close button in the upper right corner.

The dialog closes.

## Managing the Standard Collection Listeners

E-Notebook provides several, standard collection listeners that you may associate with collection types. Collection listeners are used to modify the behaviors of collections—such as the creating, hiding, renaming, duplicating and moving behaviors.

### Managing the Auto Number Collection Listener

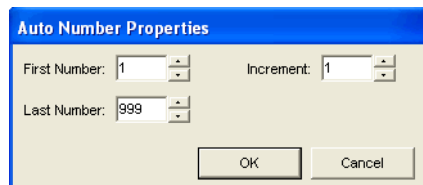
The Auto Number Listener is used to automatically name newly created collections by appending a serial number to the name of the collection that contains the newly created collection.

For example, if a Notebook collection contains experiments and the notebook is named NB-001, the Auto Number Collection Listener can be associated with the Experiment collection type to automatically number experiments within the collection (for example, NB-001-001).

Listener	Listener ProgID
Auto Number	ENStandard9.AutoNumberListener

The Auto Number Listener has three custom properties: minimum, increment, and maximum. The minimum is used to specify the serial number

of the first newly created collection. The increment is used to specify the increment between newly created collections. The maximum is used to limit the number of collections that can be contained.



When renaming a collection whose name was generated with the Auto Number Collection Listener, the collection will check to ensure that the name fits within the parameters described by the Auto Number Listener properties. The name must begin with the name of the parent collection followed by a dash and a serial number.

### Managing the Audit Collection Listener

The Audit Collection Listener is used to prevent users from deleting a collection if the collection has been modified since it was created. If this listener is associated with a collection type, then the delete command will be disabled if the collection has been modified.

Listener	Listener ProgID
Audit Collection	ENStandard9.AuditCollectionListener

This collection listener has no custom properties associated with it.

### Managing the Change Display Collection Listener

The Change Display Collection Listener is used to enable Visual Display of Changes when a user cre-

ates a particular type of collection. (See “Managing Visual Display of Changes” on page 761).

Listener	Listener ProgID
Change Display	ENStandard9.ChangeDisplay-Listener

The Change Display Collection Listener is used to enable Visual Display of Changes from collection creation onward. Note that there is also a transition listener that enables Visual Display of Changes when a particular transition is performed on a collection. See “Managing the Change Display Transition Listener” on page 757 for more information.

### Managing the Clear Value Collection Listener

The Clear Value Collection Listener is associated with a collection type containing sections with tables/property fields. This listener can be used to clear specified properties in tables or property list fields when a collection is duplicated.

For example, you may wish to clear the table section of a collection when a user duplicates that section.

Listener	Listener ProgID
Clear Value	ENStandard9.ClearValue-CListener

With the Custom Properties of the listener, you specify the section type, the field, and the property whose values are to be cleared. The top dropdown list displays the Target Section Type in the collection type. The middle dropdown list displays the Target Fields in the selected section type. The bottom dropdown list displays all of the Target properties in the field you have selected.

Enterprise

### Managing the Delete Spawn Collection Listener

The Delete Spawn collection listener is used in conjunction with the batch explorer. (The batch explorer is a form tool that makes it possible for users to view the successors and predecessors of reactions in a tree-like layout). When the Delete Spawn Listener is associated with a collection type, any batch explorer links to a collection of that type will be deleted when the user deletes the collection.

Listener	Listener ProgID
Delete Spawn	ENStandard9.DelSpawn-LinkLstnr

This collection listener has no custom properties associated with it.

### Managing the Parent Prefix Collection Listener

The Parent Prefix listener is used to ensure that when a user renames a collection, any contained collection that has a name generated by the Auto Number Listener is renamed with the new prefix. For example, consider a Notebook collection that contains Experiments. The Auto Number listener is associated with the Experiment collection type and the Parent Prefix listener is associated with the Notebook collection Type. If a notebook name is changed from “NB” to “Notebook”, then the Parent Prefix listener renames the contained experiments so that they begin with “Notebook”.

Listener	Listener ProgID
Parent Prefix	ENStandard9.ParentPrefixListener

This collection listener has no custom properties associated with it.

## Managing the Database Procedure Collection Listener

The Database Procedure Collection Listener is used to execute a database procedure during an operation on a collection.

For example, you may wish to clear the table section of a collection when a user duplicates that section.

Listener	Listener ProgID
Database Procedure	ENStandard9.DBProcCollection-Listener

With the Custom Properties of the listener, you specify the name of the procedure and when it should be called: for example, after create, before, create, etc.

## Managing the Fixed Name Collection Listener

The Fixed Name Listener is used to prevent the user from renaming collections. If the Fixed Name Listener is associated with a collection type, then the Rename command in the collection menu is made inactive when collections of that type are selected.

Listener	Listener ProgID
Fixed Name	ENStandard9.FixedNameListener

The Fixed Name Collection Listener has no custom properties associated with it.

## **Enterprise** Managing the Offline Collection Listener

The Offline Collection Listener is associated with Offline Collection type. This listener automatically creates a reference to a newly created collection in the offline folder.

Listener	Listener ProgID
Offline	ENStandard9.UniqueChild-OfTypeCListener

This collection listener has custom properties associated with it to configure. The dropdown list displays all of the collection types in the Container Collection type and you can select the container collection type to which you wish to add the Offline Collection.

## Managing the Owner Full Control Collection Listener

The Owner Full Control collection listener provides the user with Full Control permission for this type of collection when he/she is the owner. For example, if this listener is associated with the notebook collection type, then the user who creates a notebook will automatically be able to assign and remove access permissions for the notebook.

Listener	Listener ProgID
Owner Full Control	ENStandard9.OwnerFull-ControlCListener

This Collection Listener has no custom properties associated with it.

**Enterprise** Managing the No Create Offline Collection Listener

The No Create Offline Collection Listener prevents the creation of this type of collection when the user is working offline..

Listener	Listener ProgID
No Create Offline	ENStandard9.NoCreateOfflineCListener

This collection listener has no custom properties associated with it

Managing the Parent Prefix Collection Listener

The Parent Prefix listener is used to ensure that when a user renames a collection, any contained collection that has a name generated by the Auto Number Listener is renamed with the new prefix. For example, consider a Notebook collection that contains Experiments. The Auto Number listener is associated with the Experiment collection type and the Parent Prefix listener is associated with the Notebook collection Type. If a notebook name is changed from “NB” to “Notebook”, then the Parent Prefix listener renames the contained experiments so that they begin with “Notebook”.

Listener	Listener ProgID
Parent Prefix	ENStandard9.ParentPrefixListener

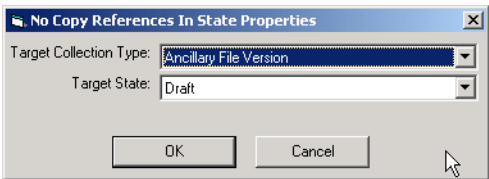
This collection listener has no custom properties associated with it.

Managing the Prevent Reference Copy Collection Listener

The Prevent Reference Copy collection listener prevents users from copying collections that contain references to specific types of collections that are in specific states. For example, if this listener is associated with an experiment/page collection type, it may be configured to prevent users from copying pages/experiments that contain references to folders that are in a Closed state.

Listener	Listener ProgID
Prevent Reference Copy	ENStandard9.NoCopyRefStateCListener

Select the custom properties as shown below:



- **Target Collection Type** – the collection type that is referenced.
- **Target State** – the state of the target collection that would prevent a user from copying a collection that has this listener associated with it.

Managing the Prevent Delete when Referenced Collection Listener

The Prevent Delete when Referenced Collection Listener prevents users from deleting a collection if the collection is referenced from another collection in E-Notebook. The reference may occur in a property list, a table, or an active document field. You associate the listener with the collection type that should not be deleted when it is referenced. For example, if you want to prevent users from deleting an Experiment/Page collection when that Experiment Page is referenced, you would associ-

ate the listener with the Experiment/Page collection type.

Listener	Listener ProgID
Prevent Delete when Referenced	ENStandard9.NoDeleteRef-CListener

The Prevent Delete when Referenced Collection Listener has no custom properties associated with it.

## Managing the Refresh Database Table Privilege Change Collection Listener

The Refresh Database Table Privilege Change listener is used to refresh the contents of a database table when the privileges associated with a collection change. The listener has properties that describe the field that is refreshed when a privilege is added or removed from a collection.

Listener	Listener ProgID
Refresh Database Table Privilege Change	ENStandard9.Refresh-DBTablePCListener

With the Custom Properties of the listener, you specify the target section type and target field. The Target Section Type popup list contains a list of all of the section types the currently logged in user can read. The Target collection type should be set to the section type that contains the field to be refreshed. The Target Field popup list contains a list of all of the database table fields in the Target section type. The Target field should be set to the

field which displays the data that is changed when the privileges change.

## Managing the Section List Collection Listener

When the Section List Collection Listener is associated with a collection type, a list of the sections in each collection of that type is cached on the E-Notebook client. This makes it possible for E-Notebook add-ins and field controls to use the list. For example, in the default configuration, the Section List Collection Listener is associated with the Acronym collection type. A list of the sections in an Acronym collection is cached on the client, and the reaction toolbar accesses this list and displays it in the Quick Add dropdown.

Listener	Listener ProgID
Section List	ENStandard9.SectionList-CListener

This collection listener has no custom properties associated with it.

## Managing the Security Collection Listener

The Security Collection Listener allows you to assign security privileges to a collection when it is created. For example, you may define a collection type that allows users to record their ideas and concepts. For IP reasons, you may want this type of collection to be visible only to the owner and, for example, a legal group in the company. This listener allows you to limit access to certain groups and individuals automatically, when the collection is created.

The owner of the collection is given Full Control privilege by default.

Listener	Listener ProgID
Security	ENStandard9.SecurityCLis- tener

With the Custom Properties of the listener, you specify individual users and groups who will be able to access collections of this type.

### Managing the Sequence Collection Listener

The Sequence Collection Listener names a new collection based on a global sequence that you specify.

Listener	Listener ProgID
Sequence	ENStandard9.Sequence- NumberCListener

With the Custom Properties of the listener, you specify the prefix, format, suffix, and database sequence names.

### Managing the Unduplicatable Collection Listener

If the Unduplicatable Collection Listener is associated with a collection type, contents of that type will not be copied when a user copies the selected collection. For example, there may be a Page/Experiment collection. If the Unduplicatable Collection Listener is associated with the Page/Experiment collection type, these experi-

ments will not be copied when a user copies the Experiment collection.

Listener	Listener ProgID
Unduplicatable Collection	ENStandard9.Unduplicat- ableCListener

This collection listener has no custom properties associated with it.

### Managing the Unique Child Collection Listener

The Unique Child Collection Listener ensures the uniqueness of a collection of this type within its container collection. For example, if you associate the listener with the User Configuration collection type, and then specify User as the container collection, it will only be possible to create a single User Configuration within each user collection.

Listener	Listener ProgID
Unique Child	ENStandard9.UniqueChild- OfTypeCListener

With the Custom Properties of the listener, you specify the container collection.

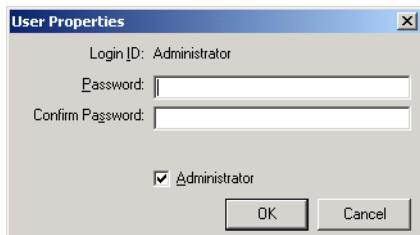
Enterprise

### Managing the User Collection Listener

The User Collection Listener is designed for those systems that use the Standard Oracle Authenticator to authenticate users with E-Notebook.

The User Collection Listener is associated with the User collection type to automatically set up users correctly for authentication. When a new user is

created, the User Collection Listener displays the User Properties dialog:



Once the user is specified, a new user collection is created with the same name as the account. The name of the user collection can be modified to any valid version of the name.

Listener	Listener ProgID
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User	ENStandard9.UserListener
------	--------------------------

Note that the User collection listener can only be added to the User collection type, as E-Notebook does not support multiple user collection types.

The User Collection Listener has no custom properties associated with it.

## Managing Templates

Templates make it possible for E-Notebook users to avoid reentering information unnecessarily. For example, a user may create a template for a particular experiment/page. It may contain data and notes that he often uses, or typical values for various properties. The user can use the template as the basis for new experiments/page collections.

Each time a collection type is created in E-Notebook, a template of that type is created automatically. As an administrator, you configure the rules that determine which types of templates an E-Notebook user can create, and which collection types can contain or reference the templates. You set up these rules the same way you would set them up for any, other collection type: by adding tem-

plates to collection types as contained collection or reference types.

The template collection type should be added as a contained collection type to a collection type that is not the container into which users will drag the templates to create new collections. For example, if Notebooks contain Experiments, the Experiment Template collection type should be added as a contained collection type within, for example, a Folder or a User. If Experiment Template is a contained collection type within Notebook, then a user will simply create a new template when he drags a template into a Notebook.

## Managing Collection Type Form Tools

There are several form tools that may only be associated with collection types, for example, the New Section Form Tool. These form tools are described here. E-Notebook also provides a number of standard form tools that you may only associate with section types. See Managing the Standard Form Tools for more information.

### Managing the Duplicate Collection Form Tool

The Duplicate Collection Form Tool allows users to create a copy of the selected collection. For example, if a user clicks the Duplicate Collection Form Tool on a Page/Experiment collection, the Page/Experiment collection will be copied. The new copy will appear within the same container collection in the Collection Tree.

Form Tool	Form Tool Control ProgID
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Duplicate Collection	ENStandardCtl9.DuplicateCollectionFormTool
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## Managing the Structure Form Tool

The Structure Form Tool is used to perform the Analyze Structure command. The Analyze Structure command populates a property list with the chemical formula and molecular weight of the associated chemical structure.

In order to use the Structure Form Tool in an E-Notebook form, one of each of the following types of fields must be present in the form:

- Chemical Structure Field
- Property List - containing
  - a “Molecular Weight” property and
  - a “Molecular Formula” property.

Form Tool	Form Tool Control ProgID
Structure	ENStandardCtl9.Structure-FormToolCtl

When you add a Structure Form Tool to a Form, you must configure the following custom properties.

## Managing the Next Step Form Tool

The Next Step Form Tool is used to create a new page or experiment containing the products of the associated chemical reaction.

In order to use the Next Step Form Tool in an E-Notebook form, one of each of the following types of fields must be present in the form:

- Chemical Structure Field
- Table Field with Reactants Listener

- Table Field with Products Listener

Form Tool	Form Tool Control ProgID
Next Step	ENStandardCtl9.Reaction-FormTool

When you add a Reaction Form Tool to a form, you must configure the following custom properties.

The E-Notebook User Guide provides more information about the tool and the calculations in the stoichiometry grid. The Stoichiometry grid is the combination of the Reactants and Products Fields.

## Managing the New Section Form Tool

The New Section Form Tool allows users to add new sections to a collection, for example, to a page or an experiment. When the user clicks the form tool he will be presented with a list of the types of sections he may add.

Form Tool	Form Tool Control ProgID
New Section	ENStandardCtl9.NewSection-FormTool

## Managing the New Child Collection Form Tool

The New Section Form Tool allows users to add new contained collections to the selected collection. For example, a user could click this form tool

on a notebook in order to create a new page/experiment within the notebook.

Form Tool	Form Tool Control ProgID
New Section	ENStandardCtl9.NewChild-CFormTool

### **Enterprise** Managing the New Sibling Collection Form Tool

The New Sibling Collection Form Tool allows users to create a new collection of the same type. For example, if a user clicks the New Sibling Form Tool on a notebook, a new notebook will be created. The new sibling will appear within the same container collection in the Collection Tree.

Form Tool	Form Tool Control ProgID
New Sibling Collection	ENStandardCtl9.NewSiblingCFormTool

## Managing Search Types

Search types allow users to search for information in E-Notebook. Users can run searches, and then save their queries and results in the Collection Tree.

In E-Notebook, search types are simply collection types that have search engines and search forms associated with them. E-Notebook provides several, standard search engines. You may also develop your own, custom search engines. For example, you could use the tool to perform various types of calculations and put the results into a manageable format within an E-Notebook collection.

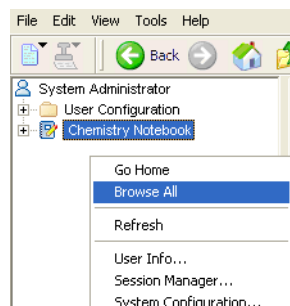
You can configure your own search forms to contain the fields you require.

## Creating a Search Type

You can define your own search types for finding and managing E-Notebook information that is important to your users. In E-Notebook, search types are simply collection types that have search engines and search forms associated with them.

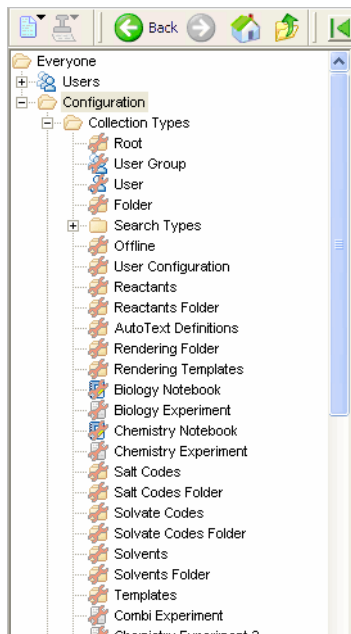
To create a search type,

1. Right-click a blank area of the Collection Tree. A menu appears.
2. Select **Browse All**.



The entire Collection tree appears, showing the Configuration Folder.

- If you wish, you may right-click the Configuration Folder and select **Browse Here**, so that the Configuration Folder will appear at the top of the Collection tree.

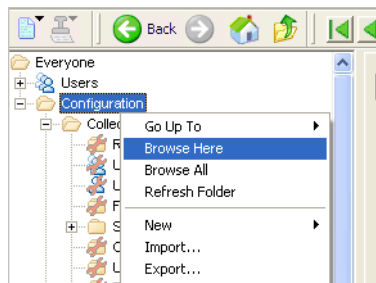


- Right-click the Search Types folder (or another folder) and select **New**, then **Collection Type**.

A new collection type appears in the Collection Tree, and you are prompted to rename it.

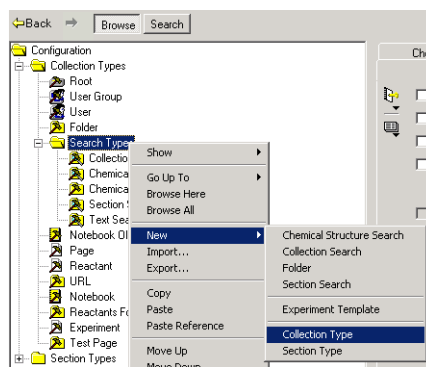
- Enter a name for the collection type (i.e., the search type).

- Right-click the search type, and select **Collection Type Configuration** from the menu that appears.



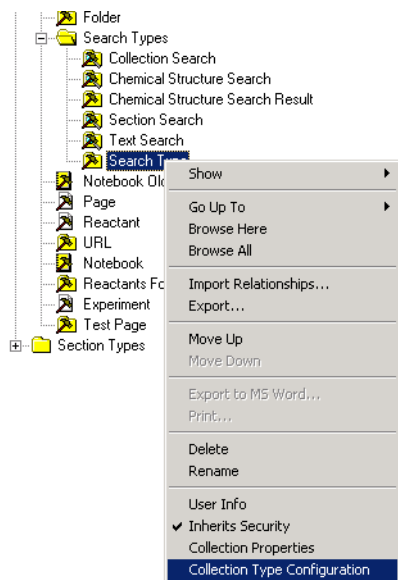
The Collection Type Configuration dialog appears.

- Specify the following information:
  - Plural Name** – enter the name applied to multiple collections of this type.
  - Icon Name** – select Search as the icon to be associated with the search type in the Collection tree.
- Right-click Search Engines, and select **New Search Engine** from the menu that appears.



A new search engine appears and you are prompted to rename it. Its attributes appear to the right. The name that you enter for the

search engine is the name that will appear in the “Search For:” drop-down list when an E-Notebook user is in Search mode.



9. Enter the following information. (See “Managing the Standard Search Engines” on page 751 for more information about the standard, E-Notebook Search Engines).

- IENSearchEngineProgid
- IENResultsCtlProgid
- IENResultsCtl License Key

Once you have created the search type, you configure it as you would any other collection type. The section type you associate with it should be a search form. See “Creating a Search Form” on page 752.

## Managing the Standard Search Engines

E-Notebook provides a several standard search engines:

### Collection Search Engine

The Collection Search Engine is used to perform searches for collections and match criteria specified in the following fields:

- Collection Query field
- Collection Type Query field
- State Query Field
- Search Location

Search Engine	Search Engine Progid	Search Engine Control Progid
Collection	ENSearchEngine9 .CollectionSearch-Engine	ENSearchEngine9 .CollectionResultsResultsCtl

### Section Search Engine

The Section Search Engine is used to perform searches for sections and match criteria specified in the a variety of field types:

- Property Query
- Table Query
- Query Text
- Chemical Query

In addition, any of the field types listed for the Collection Search Engine, above, may be used.

Search Engine	Search Engine Progid	Search Engine Control Progid
Section	ENSearchEngine9 .SectionSearch-Engine	ENSearchEngine9 .CollectionResultsResultsCtl

### Chemical Structure Search Engine

The Chemical Structure Search Engine is used to perform searches for chemical structures. The

results are organized by substructure. For each chemical structure that matches a specified query, a set of references is created that contain that chemical structure.

See Managing Chemical Query Fields.

Search Engine	ProgID	Search Engine Control ProgID
Chemical Structure	ENChemSearch9.ChemSearchEngine	ENChemSearch9.ChemSearchResults Ctrl

## Creating a Search Form

A search form is simply a section type that contains search fields. The search fields make it possible for users to search for the following information within E-Notebook. For information about each of the search fields and its usage, please see Managing Search Fields.

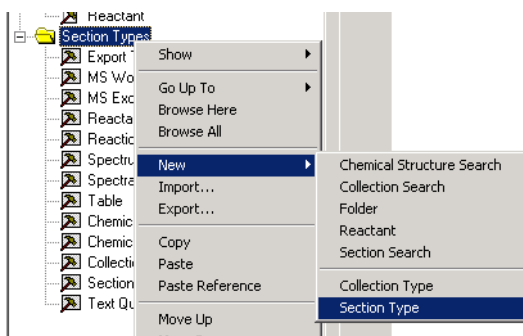
When you configure a search form, the information that a user can search for is determined by 1) the search fields in the form and 2) the search engine associated with the search type.

To create a new search form,

1. In the Collection Tree, right-click the folder or collection into which you are adding the search form.

The collection menu appears.

2. Select **New**, then **Section Type**.



A new section type appears in the Collection Tree; its blank form appears to the right. You are prompted to enter a name for the section type.

3. Type in a name for the section type.
4. Right-click the new section type in the Collection Tree and select **Section Type Configuration** from the menu that appears.

The Section Type Configuration dialog appears. This is the dialog through which you add and configure the components that make up the Form

- Fields
- Form Tools
- Section Listeners

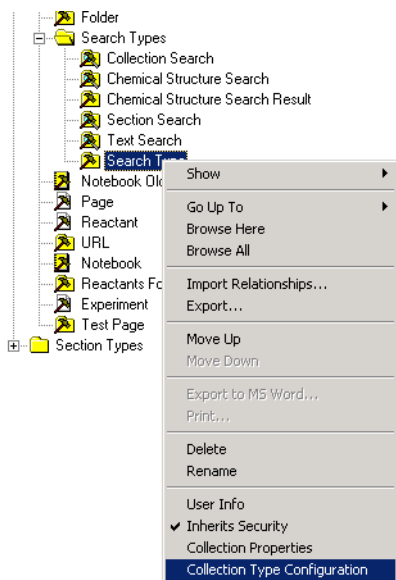
When you add Fields to the Section Type, you must add search fields.

For information about how to configure the section type, see Managing Section Types and Forms.

## Viewing and Editing the Properties of a Search Engine

In some cases, a search engine may have custom properties associated with it. You can view and/or edit the properties that are associated with a search engine.

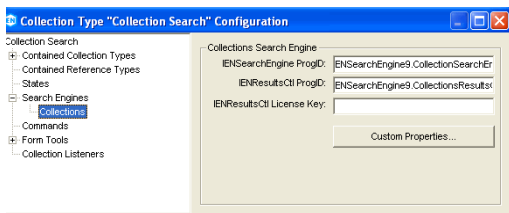
5. Right-click the search type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.



The Collection Type Configuration dialog appears.

6. Double-click Search Engines to expand the category.
7. Click the search engine.

Its ProgID's appear to the right.



8. Click the **Custom Properties** button.

If the search engine has custom properties associated with it, the properties dialog is displayed. You may edit the properties at this point. If the search engine has no custom properties, a dialog box appears, stating that the search engine has no properties associated with it.

**NOTE:** *None of the standard, E-Notebook search engines have custom properties associated with them.*

## Managing States and Transitions

You can associate states with a collection type to define properties of a collection at certain phases or points in its life cycle. Transitions are the actions a user takes to move collections from one state to another. For example, a page/experiment may have several states—each of which has different annotation rules associated with it.

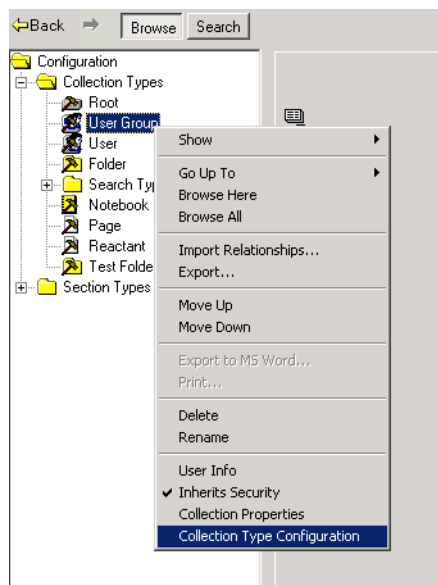
Transition listeners perform certain functions as the collection moves from one state to another. For example, a user may be prompted to enter values for certain fields, or a visual display of the changes a user makes to a collection may be enabled.

## Adding States to a Collection Type

The states of a collection type define properties, such as change control options, that vary throughout its life cycle.

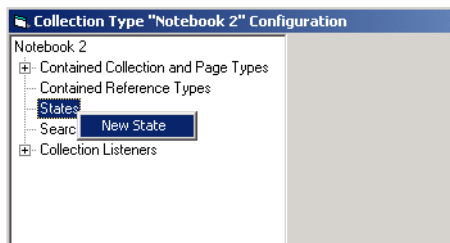
To add states to a collection type:

1. Right-click the collection type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.



The Collection Type Configuration dialog appears.

Right-click **States** and select **New State** from the menu that appears:



A new state appears and you are prompted to rename it.

2. Enter a name for the State. Also, specify the annotation rules that will apply to the State. There are four annotation rules from which you may choose. The rules appear in the drop-down lists.

The options are:

- **Writable with Optional Annotation** – the user may supply annotation for changes if he wishes. He will not be prompted to supply it.
- **Read-Only** – the collection cannot be edited in this state.
- **Writable with Prompted Optional Annotation** – the user is prompted to supply annotation for changes, but is not required to supply it.
- **Writable with Required Annotation** – the user must supply annotation for changes. The user will be prompted to enter annotation whenever a version of the collection is saved.

To add another state to the Collection Type, repeat steps 2 and 3.

Once you have defined the states, you must configure the transitions from one state to another. To set up a transition between states, see [Configuring a Transition between States](#).

## Configuring a Transition between States

A transition is the action a user takes to move a collection from one state to another. For example, a “Close” transition may allow a user to move a collection from an Open state in which edits are permitted to a Closed state in which the collection is read-only.

You may also associated transition listeners with a transition, so that the effect of the transition is modified, usually by performing an operation that is associated with the transition.

To configure a transition between states:

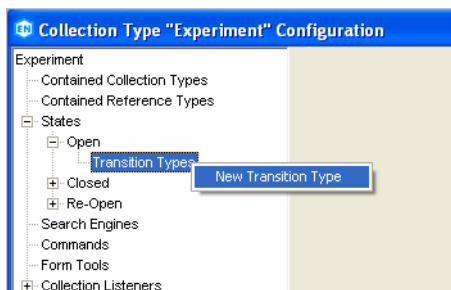
1. Right-click the collection type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears.

The Collection Type Configuration dialog appears.

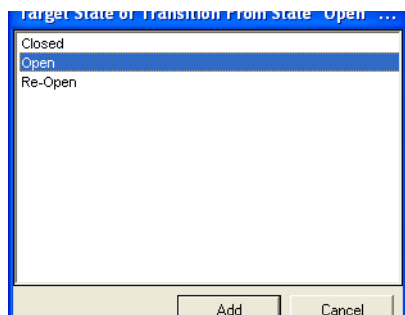
- Click the plus sign next to States to expand the category and see the states that are associated with the collection type.
- Click the plus sign next to the state that is to be the initial state in the transition. In this example, we are setting up a transition from the Open state to the Closed state.

The Transition Types category appears.

- Right-click Transition Types and select **New Transition Type** from the menu that appears.



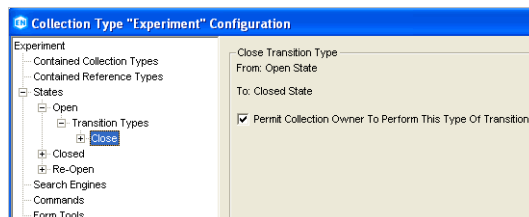
A dialog appears, listing the possible target States for the Transition,



- Click a target state and click the **Add** button.

The target state appears within the list of Transition Types. To the right, a checkbox appears, with which you may specify whether the owner of the collection can perform the Transition. By default, the owner of the collection can per-

form the transition, but in some cases, you may set up a transition that can only be performed by administrators or certain users.



- Select whether the owner may perform the transition.

To associate a transition Listener with the transition, see [Managing Transition Listeners](#).

## Managing Transition Listeners

Transition listeners are used to perform a certain function with the transition of a collection from one state to another. For example, a transition may be from an open state that permits edits to a closed, read-only state. One of the standard transition listeners checks that required properties have been entered before the transition can be completed.

E-Notebook provides several, standard transition listeners that you may associate with transitions. You may also develop your own, customized transition listeners to perform additional functions.

## Associating a Transition Listener with a Transition

Transition Listeners modify the effects of transitions, usually by performing an operation that is associated with the transition.

To associate a transition listener with a transition:

- Right-click the collection type in the Collection tree, and select **Collection Type Configuration** from the menu that appears.

The Collection Type Configuration dialog appears.

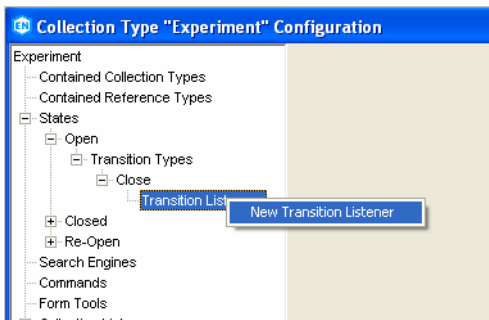


- Click the plus sign next to states to expand the category and see the states that are associated with the collection type.
- Click the plus sign next to the state that is the initial state in the transition. In this example, the transition is from the Open state to the Closed state.

The Transition Types category appears.

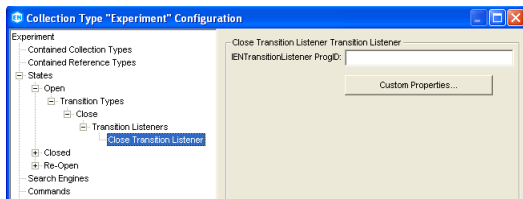
- Click the plus sign next to Transition Types to expand it and see the transitions.
- Right-click the transition with which you wish to associate the transition listener

A menu appears:



- Select New Transition Listener .

A new transition listener appears, and you are prompted to rename it.



- Enter a name for the Transition Listener, and fill in its IENTransitionListener ProgID.

The transition listener is associated with the transition. The function it performs will occur each time a user conducts this type of transition on this type of collection.

See Managing the Standard Transition Listeners for descriptions of the standard, transition listeners that E-Notebook provides.

## Viewing and Editing the Properties of a Transition Listener

A transition listener may have custom properties associated with it.

To view and/or edit the custom properties:

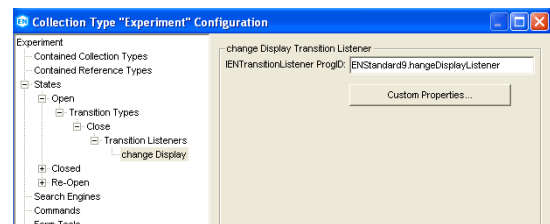
- Right-click the relevant collection type in the Collection tree, and select **Collection Type Configuration** from the menu that appears.

The Collection Type Configuration dialog appears.

- Click the plus sign next to states to expand the category and see the states that are associated with the collection type.
- Click the plus sign next to the state that is the initial state in the transition. In this example, the transition is from Open State to the Closed State.

The Transition Types category appears.

- Click the plus sign next to Transition Types to expand it and see the transitions.
- Click the transition listener whose properties you wish to view or change.



- Click the Custom Properties button.

If the transition listener has custom properties associated with it, a properties dialog appears, and you may view and/or edit the properties. If the transition listener has no custom properties associated with it, a message appears to that effect.

Note that none of the standard transition listeners have custom properties associated with them.

## Removing a Transition Listener from a Transition

In some cases, you may no longer want to have a particular transition listener associated with the transition for a collection type.

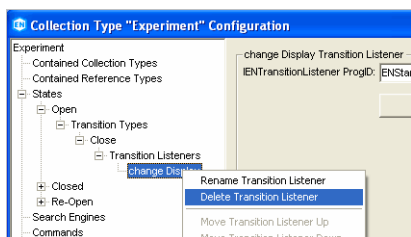
To remove a transition listener from a transition:

1. Right-click the relevant collection type in the Collection Tree, and select **Collection Type Configuration** from the menu that appears. The Collection Type Configuration dialog appears.
2. Click the plus sign next to states to expand the category and see the states that are associated with the collection type.
3. Click the plus sign next to the state that is the initial state in the transition. In this example, the transition is from Open state to the Closed state.

The Transition Types category appears.

4. Click the plus sign next to Transition Types to expand it and see the transitions.
5. Right-click the transition listener you wish to remove.

A menu appears:



6. Select **Delete Transition Listener**.

A message appears, asking you to confirm that you wish to delete the Transition Listener.

7. Click **Yes**.

The transition listener is removed from the transition.

## Managing the Standard Transition Listeners

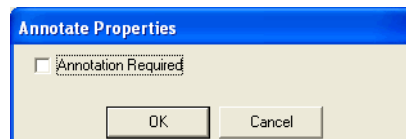
Transition listeners are used to perform a certain function that is associated with a transition from one state of a collection to another. E-Notebook provides several, standard transition listeners that you may associate with transitions.

### Managing the Annotate Transition Listener

When a user performs the transition, the Annotate listener prompts the user for an annotation that is associated with the transition.

Listener	Listener ProgID
Comment	ENStandard9.AnnotateTListener

If you would like to make the annotation required, you can configure the custom properties.



Click the Annotation Required checkbox to select it. Then, click OK to close the dialog.

### Managing the Change Display Transition Listener

The Change Display Transition Listener is used to enable Visual Display of Changes when a user per-

forms a particular transition. (See Managing Visual Display of Changes).

Listener	Listener ProgID
Change Display	ENStandard9.ChangeDisplayTLListener

The Change Display Transition Listener has no custom properties associated with it.

Note that there is also a collection listener that can be used to enable Visual Display of Changes as soon as a collection is created. See Managing the Change Display Collection Listener for more information

## Managing Change Security Transition Listener

The Change Security Transition Listener enables Inherits Security for a collection during a transition. This may be used, for example, to limit access to an experiment before it is in a Closed state.

Listener	Listener ProgID
Change Security Transition	ENStandard9.ChangeSecurityTransitionListener

With the custom properties of the transition listener, you have the option to specify whether, if a particular property in the collection is filled in, the Inherits Security option should remain off even after the transition is completed. Specifically, you can specify:

- Whether the property is in the collection or an associated indexing collection.
- Section type containing the property
- Property list containing the Property
- Whether inherits security should be set or not if the property is filled in.

## Managing Confirm Transition Listener

The Confirm Transition Listener prompts a user to confirm a specific transition prior to the transition occurring and displays a message to the user whenever he goes for any transition, asking him to confirm that he is sure he wants to proceed with a transition. If the user clicks Yes, then the transition proceeds. If the user clicks No, then the transition is canceled.

Listener	Listener ProgID
Confirm Transition	ENStandard9.ConfirmTransitionListener

The Confirm Transition Listener has no custom properties associated with it.

## Managing the Export Transition Listener

The Export Transition Listener supports the printing workflow. It makes it possible to export the contents of a collection as part of a transition.

Listener	Listener ProgID
Export Transition	ENStandard9.ExportTransitionListener

The rendering sections and their corresponding templates must be set as properties of this listener.

## Managing the Final Print Transition Listener

The final print transition listener can be added to a transition to force the printout of the entire collection before the transition continues. The name of the export template used for the final print is “<Region> Final Print” where <Region> is replaced by the name of the region of the currently logged-on user.

When this transition listener is associated with a transition type, transitions will be interrupted with a message box as follows:

- “Click OK to print the final print of <Collection> using the printer <PrinterName>”.

where <Collection> is replaced with a description of a collection, such as “experiment CS-00005” and <PrinterName> is replaced with the name of the default printer.

If the user clicks **OK**, then the transition proceeds by printing all of the pages of the collection to the default printer. If the user clicks **Cancel**, then the transition is canceled.

After the printout is completed, another message box appears as follows:

- “Did the final print of <Collection> succeed?”
  - Yes – Continue with this transition
  - No – Print again
  - Cancel – Abort this transition”

where <Collection> is replaced with a description of a collection.

If the user clicks **Yes**, then the transition proceeds. If the user clicks **No**, then the pages are printed again and the message box re-appears. If the user clicks **Cancel**, then the transition is canceled.

If the user wants to change the default printer, they should choose print setup prior to performing the transition.

Listener	Listener ProgID
Final Print	ENStandard9.FinalPrintTListener

The Final Print Transition Listener has no custom properties associated with it.

## Managing the Locked Container Transition Listener

The Locked Container listener checks to ensure that the container of the collection is in a state which permits full control over the contents of the container.

For example, consider an Experiment collection contained within a Notebook collection. Closed is a read-only (locked) state; the Reopen transition moves a collection from the Closed, read-only state to a state in which edits are permitted. If the Locked Container Listener is associated with the Reopen transition of the Experiment collection type, then users will be prevented from reopening an Experiment within a Notebook that is in the Closed (locked) state.

Listener	Listener ProgID
Locked Contents	ENStandard9.LockedContainerListener

The Locked Container Transition Listener has no custom properties associated with it.

## Managing the Print Transition Listener

The Print Transition Listener supports the printing workflow. It makes it possible to print the contents of a collection as part of a transition.

Listener	Listener ProgID
Print Transition	ENStandard9.PrintTListener

The rendering sections and their corresponding templates must be set as properties of this listener.

# Managing the Required Non-Blank Properties Transition Listener

The Required Non-blank Properties Transition Listener prevents a transition from occurring if specific properties are not filled in.

Listener	Listener ProgID
Required Non-blank Properties Transition	ENStandard9.RequiredNonBlankTListener

# Managing the Required Rows Transition Listener

The Required Rows Transition Listener prevents a transition from occurring if specific rows are missing from a table.

Listener	Listener ProgID
Required Rows Transition	ENStandard9.RequiredRowsTListener

# Managing the Required Properties Transition Listener

The Required Properties listener checks to ensure that the contents of the property list and table section cells within the specified collection conform to the Required and Not Blank options associated with the properties of the property list and table fields. If a property in a property list or a table property does not conform with the corresponding

Required or Not Blank option, then the transition will not be completed.

Listener	Listener ProgID
Required Properties	ENStandard9.RequiredPropertiesListener

The Required Properties Transition Listener has no custom properties associated with it.

Enterprise

# Managing the Sign Version Transition Listener

The Sign Version Transition Listener invokes E-Signatures with a particular transition.

Listener	Listener ProgID
Sign Version Transition	ENStandard9.SignVersionTL

The Configuration of this listener includes:

- Whether or not a countersignature is required
- The transition that should occur upon successful completion of the signature process (e.g., “to Closed”)
- The transition that should occur upon failure of the signature process (e.g., “to Open”)

# Managing the Unlocked Contents Transition Listener

The Unlocked Contents listener checks to ensure that the collections contained within a collection are all locked before the container collection can transition into a locked state (meaning that the change and annotation rules for the state are Read-Only).

For example, consider an Experiment collection contained within a Notebook collection. Closed is

a read-only state, and the Close transition moves a collection from an unlocked, editable state to the Closed, read-only state. If the Unlocked Contents Listener is associated with the Close transition of the Notebook collection type, then users will be prevented from closing a Notebook if it contains experiments that are not Closed.

Listener	Listener ProgID
Unlocked Contents	ENStandard9.UnlockedContentsListener

The Unlocked Contents Transition Listener has no custom properties associated with it.

### **Enterprise** Managing the View Signed Versions Transition Listener

The View Signed Versions Transition Listener allows a user to view all of the electronically-signed renditions of a collection. This listener is used with the E-Signatures feature.

Listener	Listener ProgID
View Signed Versions Transition	ENStandard9.DisplaySignedVersionTL

This listener has no custom properties.

## Configuring Change Control Options

E-Notebook provides auditing and change control features. For every change that a user makes, an audit trail records the logged in identity of the user, the date, and the time. This is done automatically when users add, delete, or update data. The audit

trail information is stored in the E-Notebook database.

In addition, you may configure E-Notebook such that users must annotate the changes they make to collections. You may also enable Visual Display of Changes at some point in the life cycle of a collection.

See the following topics:

- Managing Visual Display of Changes
- Configuring Annotation Options
- Configuring Autosave

## Managing Visual Display of Changes

Depending the collection type and its state, it is possible for users to view a Visual Display of Changes that have been made to data in the collection. If Visual Display of Changes is enabled, the changes that have been made to a collection can be viewed in E-Notebook, and the changes will be shown in the printed collection.

Visual Display of Changes may be enabled from the very beginning of the collection life cycle, when the collection is first created. Alternatively, you may enable Visual Display of Changes when a user performs a particular collection transition; a common example is the transition from a closed, read-only state to a reopened state in which edits are permitted.

The version of the collection that existed when the Visual Display of Changes began is called the Baseline Version of the collection. (Note: a version is created each time the collection is saved). Users will see this version highlighted in the History Pane. If Visual Display of Changes is enabled, there are visual indicators next to the data that was changed after the Baseline Version was saved. See the User Guide for further description of the ways changes are presented to the user.

When Visual Display of Changes is enabled for a collection, the printed output will include 1) the

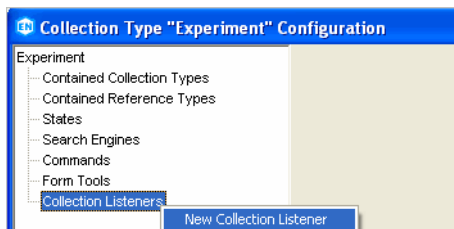
baseline version that existed at the time that Visual Display of Changes began and 2) all subsequent changes.

Note that once Visual Display of Changes is enabled for a collection, it remains enabled for the life of the collection.

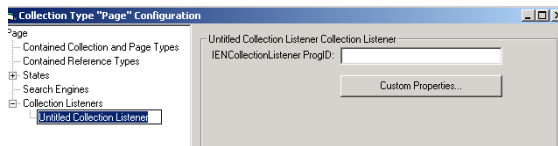
## Enabling Visual Display of Changes from Collection Creation Onward

To begin the Visual Display of Changes at collection creation,

1. Right-click the Collection Type in the Collection tree, and select **Collection Type Configuration** from the menu that appears.
2. Right-Click Collection Listeners and select **New Collection Listener** from the menu that appears.



A new collection listener appears and you are prompted to rename it.



3. Type in a name for the collection listener.
4. Enter the `ENStandard8.ChangeDisplayListener` as the `IENCollectionListener ProgID` for the listener you wish to add.

The collection listener is associated with the collection type.

5. To close the collection type configuration dialog, click the close button in the upper right corner.

The dialog closes. New collections of this type will have Visual Display of Changes enabled for their entire life cycles.

## Enabling Visual Display of Changes with a Transition

To enable Visual Display of Changes when a user performs a particular collection transition:

1. Right-click the collection type in the Collection tree, and select **Collection Type Configuration** from the menu that appears.

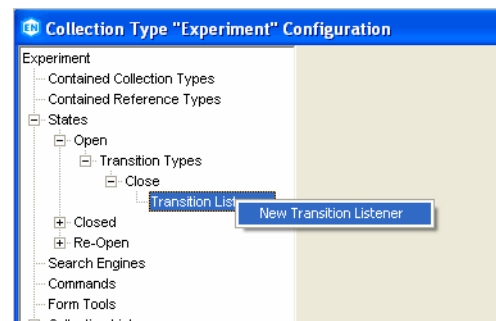
The Collection Type Configuration dialog appears.

2. Click the plus sign next to **States** to expand the category and see the states that are associated with the collection type.
3. Click the plus sign next to the state that is the initial state in the transition. For example, the transition is from **Closed** state to the **Reopened** state.

The **Transition Types** category appears.

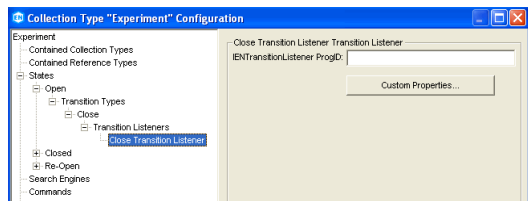
4. Click the plus sign next to **Transition Types** to expand it and see the transitions.
5. Right-click the transition with which you would like the Visual Display of Changes to begin.

A menu appears:



6. Select **New Transition Listener**.

A new Transition Listener appears, and you are prompted to rename it.



7. Enter a name for the transition listener, and enter ENStandard8.ChangeDisplayTListener as its IENTransitionListener ProgID.

Visual Display of Changes will be enabled when a user performs this transition on a collection of this type.

Note that even when Visual Display of Changes is not enabled, the audit trail still captures the history, and the history pane displays a list of the saved versions and transitions for a collection.

## Configuring Annotation Options

You may configure E-Notebook such that users can annotate the changes they make to collections. E-Notebook provides four options for annotation. You configure these options on a per collection type, per state basis. This allows you to configure different annotation rules for the different phases of a collection life cycle.

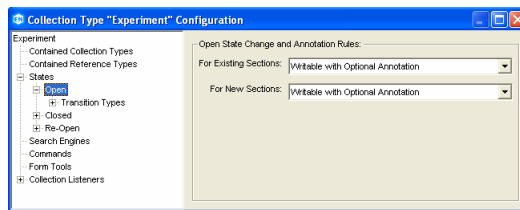
To configure the annotation rules for a state:

1. Right-click the collection type in the Collection tree, and select Collection Type Configuration from the menu that appears.

The Collection Type Configuration dialog appears.

2. Click the plus sign next to states to expand the category and see the states that are associated with the collection type.

3. Click the state for which you are configuring the annotation options.



You may select an annotation rule for 1) Existing Sections and 2) New Sections.

There are four annotation rules from which you may choose. The rules appear in the drop-down lists.

The options are:

- **Writable with Optional Annotation** – the user may supply annotation for changes if he wishes. He will not be prompted to supply it.
  - **Read-Only** – the collection cannot be edited in this state.
  - **Writable with Prompted Optional Annotation** – when the collection is saved, the user is prompted to supply annotation for changes, but is not required to supply it.
  - **Writable with Required Annotation** – when the collection is saved, the user must supply annotation for changes. The user will be prompted to enter annotation whenever a version of the collection is saved.
4. Select the annotation rules you wish to apply to the state.

When a collection of this type is in this state, the annotation option you have selected will apply.

If you would like users to provide annotation when they perform a particular transition, you can associate the Annotate Listener with the transition.

## Configuring Autosave

The Autosave feature allows changes to be saved automatically to the database after a specified time



interval following a change made to the contents of a section. The autosave interval for a particular collection can either be specified by a user that has full control over the collection or can be inherited from the parent collection.

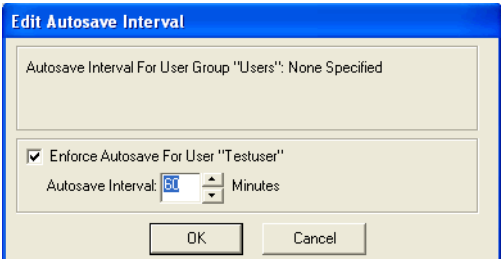
To specify the autosave interval for a collection

1. In the collection tree, right-click the collection and choose the Collection Properties from the menu that appears.

The autosave interval appears, in units of minutes. If no autosave interval has been specified for the collection or its containing collection, then the autosave interval is “None” (as shown above) and no autosave will occur for the collection.

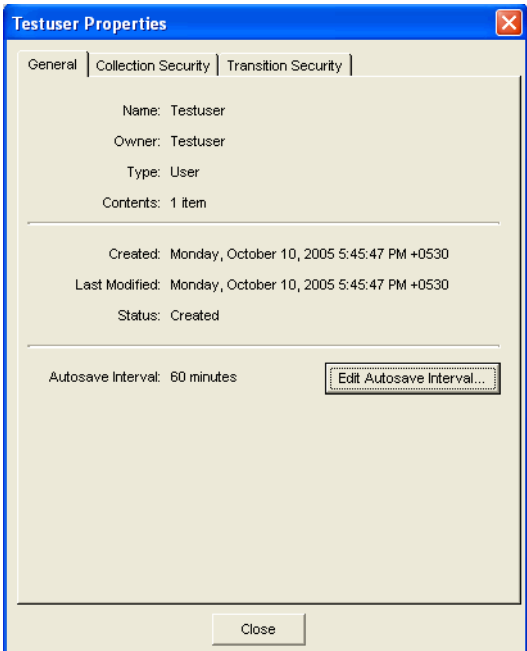
2. Click the **Edit Autosave Interval** button.

The Edit Autosave Interval dialog box appears. A dialog box appears in which the user can specify the autosave interval for the collection. The top portion of the dialog box displays the autosave interval for the parent collection.



3. Enter the autosave interval for the collection and click **OK**.

The autosave interval appears in the Collection Properties dialog.



If the autosave interval you have specified is greater than the autosave interval of the container of the collection, then the autosave interval of the container will override the autosave interval specified for the collection.

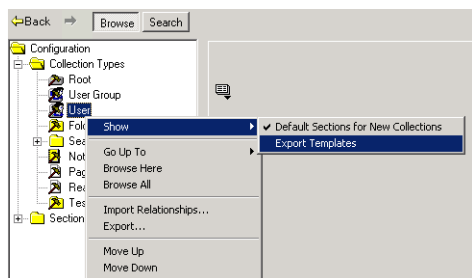
# Managing Export Templates of Collection Types

Collection type export templates allow users to print E-Notebook sections in a collection, or to export sections to Microsoft Word. You create export templates in MS Word sections, using tags to refer to E-Notebook fields.

An export template must be set up for each, new collection type you create.

To view the export template of a collection type:

1. Right-click the collection type in the Collection Tree.  
A menu appears.
2. Select Show, then Export Templates.



If the collection type has an export template, the template appears in the right frame. If not, the right frame is blank, and you must create a new template.

See the following topic:

- Creating and Editing the Export Template for a Collection Type

## Creating and Editing the Export Template for a Collection Type

The export template for a collection type allows users to print the E-Notebook sections in a particular collection, and to export sections to Microsoft Word. The headers and footers from the collection type export template are used in the printout.

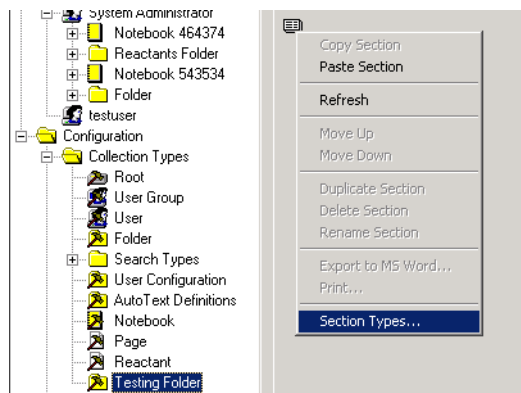
### Creating the Export Templates for a Collection Type

To create an export template:

1. Right-click the collection type in the Collection Tree.  
A menu appears.
2. Select Show, then Export Templates.

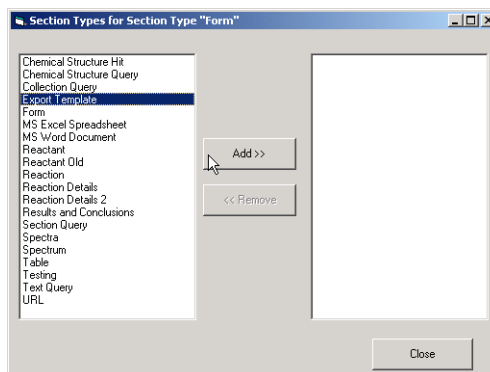
The right frame is blank if there is no export template associated with the collection type. If you wish to edit an existing export template, see “Editing the Export Template for a Collection Type” below.

3. Right-click the section icon in the right frame.  
The section menu appears.



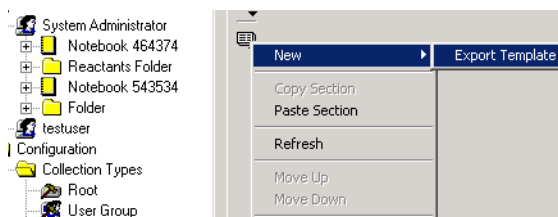
4. Select Section Types.

The section types dialog box appears.



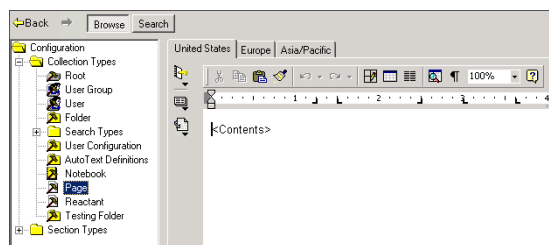
5. Select Export Template and click the Add button.
6. Click the Close button.  
The section types dialog closes.
7. Right-click the section menu icon again.  
The section menu appears.

## 8. Select New and then Export Template.



An MS Word section appears in the right frame.

9. Right-click the section menu icon and select Rename.
10. Type in the name of one of the regions. (The region names are found in the Region tab of the Collection Properties dialog for a user collection), for example, “United States”.
11. Create an additional export template for each of the other regions to which your system users are assigned. Name each template after the region—e.g., “Europe” and “Asia/Pacific”.
12. Add the text “<Contents>” into each of the templates. An example is shown below:



## Editing the Header and Footer Information

The header and footer is printed on every page when a user prints the collection or a portion of the collection. The header and footer of a collec-

tion type export template can contain standard replacement tags with the following data:

Tag	Replacement
<collectionStatus>	The state of the collection. (Note that if you are using the Final Print Transition Listener, the state will print as the initial state of the transition, and not as the target state. In this specific case, if you would like the name of the target state to print, simply type the text name of the state into the header or footer.)
<dateCreated>	The timestamp of creation of the collection
<dateModified>	The timestamp of last modification
<datetoday>	The timestamp of the creation of the export document or printout
<collectionOwner>	The name of the owner of the collection
<collectionName>	The name of the collection
<collectionType>	The type of the collection

To edit this data:

1. While viewing the export template in E-Notebook, click the print layout view button in the lower left corner of the MS Word field. It is the third button in the row.

The export template appears in print layout view, and the header is visible

2. Double-click the header or footer.
3. Edit as desired.



# Chapter 40: User Administration

You can create new users and associate logon IDs, passwords, and security properties with them. Security properties determine who has access to a user and the collections that fall under the user in the collection tree.

To streamline user administration, you can create user groups, and then create users who inherit the access privileges that you have assigned to the user groups.

Users and user groups are types of collections and they appear in the Collection Tree. You can manage users and user groups—copying them, referencing them, moving them, etc.—as you would other collections.

## Creating a User

You create a User just as you would create any other collection. Users are often created within User Groups. See *Creating a User Group* for more information.

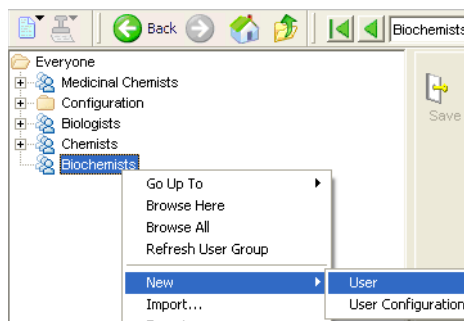
1. Right-click the collection (which may be a User Group) to which you wish to add the User.

A menu appears.

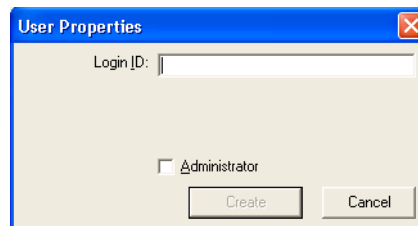
2. Select.

A list of the types of collections you may add appears.

3. Select User.



A User is created within the collection you selected. You are prompted to enter a Login ID and select whether the User is a system administrator. (Note: with some systems, you may be prompted to enter a password for the user as well).



Once you have created the User, you must assign a geographical region. See *Setting the Region for a User*.

The User automatically inherits the security privileges of the User Group (or other container collection) to which he was added. You may disable inherited security and set the access permissions for the User independently. In addition, you may add additional security permissions to the User Collection.

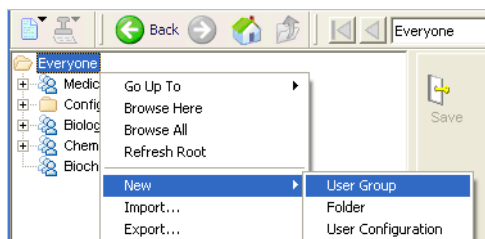
See *Managing Collection Security* for more information.

## Creating a User Group

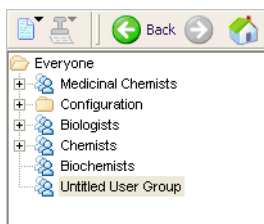
You create a User Group just as you would create another collection. You can then add Users to the group, and the Users automatically inherit the security profile of the group. It is possible to add additional permissions to a User's individual security profile as well.

To create a User Group:

1. Right-click the collection to which you wish to add the User Group. This is often the root collection of E-Notebook.  
A menu appears.
2. Select **New**.  
A list of the collections you may add appears.
3. Select **User Group**:



A User Group is created and you are prompted to give it a name.



Depending upon your configuration, you may add Users to the group by either 1) adding references to the Users, or 2) adding User collections to the User Group directly.

You may then assign security permissions to the User Group, so that all members of the group have

access to the collections you specify. See Managing Collection Security for more information.

## Changing a User's Properties

If you are a system administrator, you can change a user's security and logon properties.

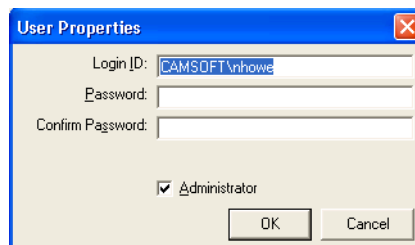
To change the logon ID and/or administrator status of a user:

1. Right-click the user in the Collection Tree.  
A menu appears.
2. Select **User Info**.  
The User Properties dialog box appears.
3. You may edit the logon ID and password, and select whether or not the user has administrative privileges.

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**NOTE:** The *Administrator* checkbox is only visible if you are a full system administrator, and the password field may not be present with your specific configuration of E-Notebook.

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## Changing the Security Properties of a User Collection

You may change the security properties for a User Collection as well, to determine who may view or edit the collections that the user creates. You change the security properties for a user just as you would change the security properties of any other collection. See Managing Collection Security.

# Chapter 41: Managing E-Notebook Security

Security in E-Notebook is set up on a collection basis. Security properties may be set up for any collection in the Collection Tree—whether it be a User, a Notebook, a Folder, etc. The security properties of a collection determine who has read, write, or full control access to that collection. These access privileges may be assigned to individual users or to user groups.

By default, each collection inherits the security properties of its parent in the Collection Tree. The inherited security option may be disabled, however, so that the security properties of a collection can be configured independently of its parent.

In addition to security at the collection level, you may also set up security for collection transitions, specifying which users may or may not perform certain transitions on collections.

In order for you to see who is logged into E-Notebook, there is a Session Management tool. This tool also provides the ability to end the E-Notebook session for a particular user.

## Managing Collection Security

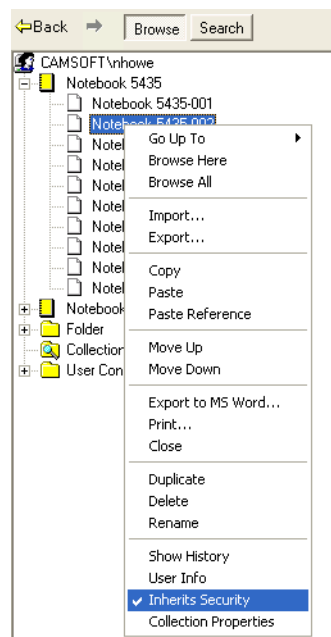
As an Administrator, you may change the access privileges that E-Notebook Users have to specific collections.

The default security for a new collection is Inherits Security, meaning that a collection has the same security profile as its parent collection in the collection tree. You may disable inherited security if you would like the security profile of a collection to be independent of the security profile of its parent.

To disable inherited security:

1. Right-click the collection for which you wish to disable inherited security.

A menu appears.



2. If Inherits Security is checked, select it to clear the checkmark.

Inherits Security is disabled.

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**NOTE:** If you disable Inherits Security, the permissions that the collection had inherited will become assigned permissions. You must remove these permissions explicitly if you do not wish these users or groups to have access to the collection.

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## Collection Security

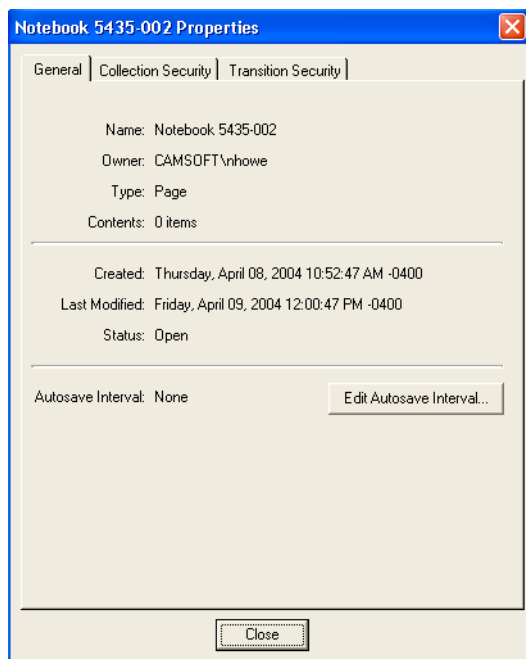
To configure or change the security properties of a collection:



1. Right-click the collection whose security properties you wish to change.  
A menu appears.

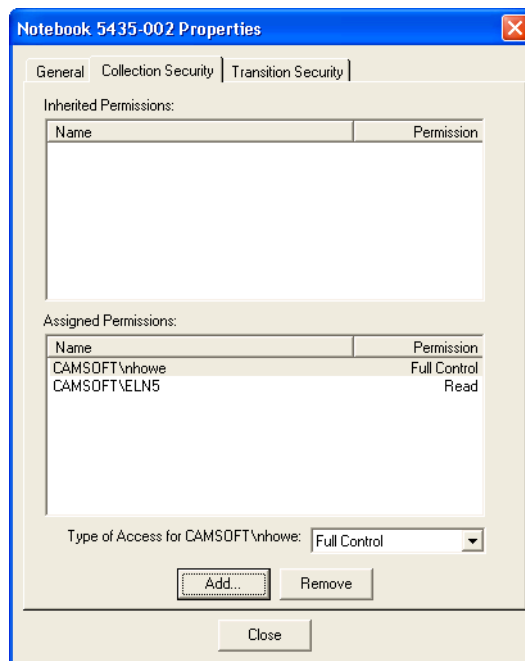
2. Select Collection Properties.

The Collection Properties dialog box appears.



3. Click the Collection Security tab.

The Security tab appears. The Groups and Users who have permission to access this item appear in one of the two lists: **Inherited Permissions**, **Assigned Permissions**.



Inherited Permissions are permissions inherited from the parent collection in the collection tree. (These permissions can only be changed by disabling inherited security, as discussed above, or by changing the security profile of the parent collection). Only the Assigned Permissions can be changed from this dialog.

4. Take the appropriate action:

Desired Result	Action to take
Add a User or Group to the list of Assigned Permissions.	<ol style="list-style-type: none"><li>1. Click Add... The Choose User or Group dialog appears.</li><li>2. Select the appropriate user or group from the tree. (You may either <b>a)</b> right-click within a blank portion of the tree and select <b>Browse All</b> to see all of the Users, or <b>b)</b> click the <b>Search</b> button and perform a search for a User or group of Users).</li><li>3. Click Add.</li><li>4. Select the appropriate access from the list box:<ul style="list-style-type: none"><li>• <b>Read</b> – permits a user to view the Collection, but not edit it.</li><li>• <b>Read and Write</b> – permits a user to view and edit the Collection.</li><li>• <b>Full Control</b> – permits a user to view the Collection, edit it, and assign or remove security permissions for it.</li></ul></li></ol>
Remove a User or Group from the list	<ol style="list-style-type: none"><li>1. Highlight the user or group in the list.</li><li>2. Click Remove.</li></ol>

Desired Result	Action to take
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Change the type of access for a user or group currently in the list.	<ol style="list-style-type: none"><li>1. Highlight the user or group in the list of Assigned Permissions.</li><li>2. Select the appropriate access from the list-box:<ul style="list-style-type: none"><li>• <b>Read</b></li><li>• <b>Read and Write</b></li><li>• <b>Full Control</b></li></ul></li></ol> <p><b>NOTE:</b> Note that a user with Full Control permission over his home collection (his user collection) is also able to end his own sessions by using the Session Manager.</p>
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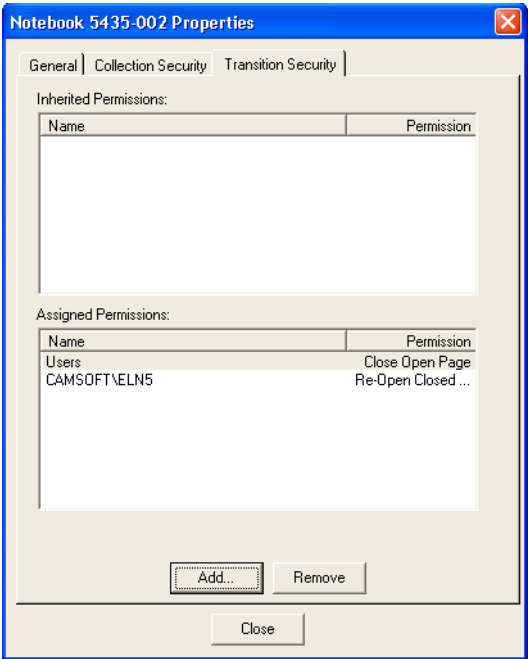
## Transition Security

Transition Security is the security applied to the collection transitions. For example, some users may be allowed to close a collection while others can also reopen the collection.

To change the Transition Security Properties of a collection:

1. Right-click the collection whose Security Properties you wish to change.  
A menu appears.
2. Select Collection Properties.  
The Collection Properties dialog box appears.
3. Click the Transition Security tab.

The **Security** tab appears. The groups and users who have permission to apply a transition to this item appear in one of the two lists: **Inherited Permissions**, **Assigned Permissions**.



Inherited Permissions are permissions inherited from the parent collection in the Collection Tree. (These permissions can only be changed by disabling inherited security, as discussed above, or by changing the security profile of the parent collection). Only the Assigned Permissions can be changed from this dialog.

4. Take the appropriate action:

### Desired Result Action to take

- Add a User or Group to the list of Assigned Permissions.
1. Click **Add...**  
The **Choose User or Group** dialog appears.
  2. Select the appropriate user or group from the tree. (You may either **1**) right-click within a blank portion of the tree and select **Browse All** to see all of the Users, or **2**) click the **Search** button and perform a search for a User or group of Users).
  3. Click **Add**.  
The **Choose Transition Types** dialog appears.
  4. Select the appropriate transition type(s).
  5. Click **Add**.  
The User or Group appears in the **Assigned Permissions** list, along with the transition type(s) you selected.

- Remove a User or Group from the list.
- Click **Remove**.

## Managing the Security Properties of a Collection Type

The access privileges that you set up for a collection type determine which users may create new collections of this type in the Collection Tree, and

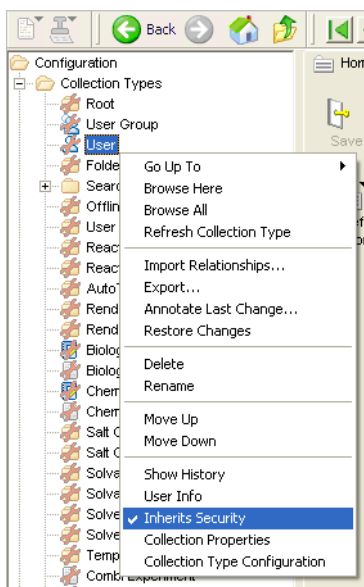
which users may modify the configuration of the collection type.

As with other collections, the default security for a collection type is Inherits Security, meaning that a collection type has the same security profile as its parent collection in the Collection Tree. You may disable inherited security if you would like the security profile of a collection type to be independent of the security profile of its parent.

To disable inherited security:

1. Right-click the collection type for which you wish to disable inherited security.

The collection menu appears.



2. If Inherits Security is checked, select it to clear the checkmark.

Inherits Security is disabled.

---

**NOTE:** If you disable Inherits Security, the permissions that the collection had inherited will become assigned permissions. You must remove these permissions explicitly if you do not wish these users or groups to have access to the collection.

---

## Collection Type Security

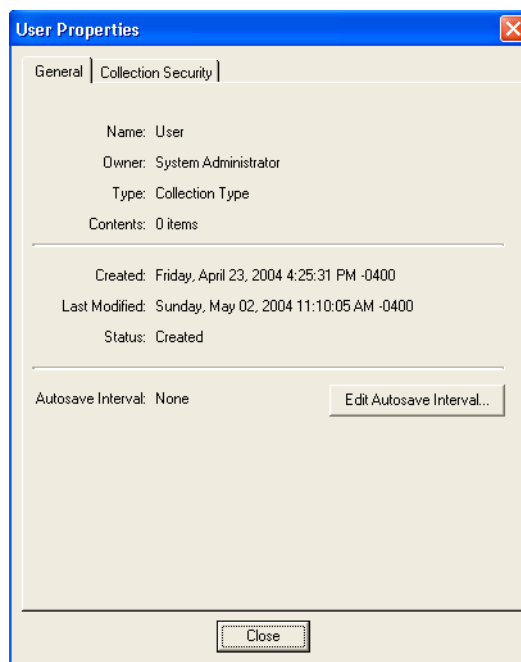
To set up or change the security properties of a collection type:

1. Right-click the collection type whose security properties you wish to change.

A menu appears.

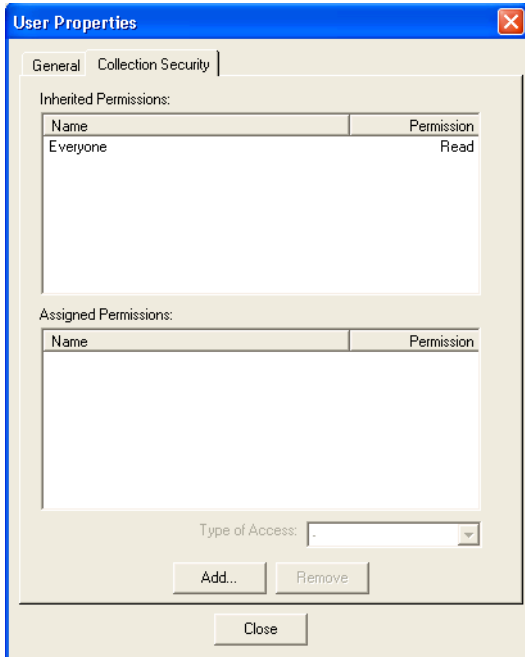
2. Select Collection Properties.

The Collection Properties dialog box appears.



3. Click the Collection Security tab.

The **Security** tab appears. The groups and users who have permission to access this item appear in one of the two lists: Inherited Permissions, Assigned Permissions.



Inherited Permissions are permissions inherited from the parent collection in the collection tree. (These permissions can only be changed by disabling inherited security, as discussed above, or by changing the security profile of the parent collection). Only the Assigned Permissions can be changed from this dialog.

4. Take the appropriate action

## Desired Result Action to take

Add a User or Group to the list of Assigned Permissions

1. Click **Add...**  
The Choose User or Group dialog appears.
2. Select the appropriate user or group from the tree. (You may either **1**) right-click within a blank portion of the tree and select **Browse All** to see all of the users, or **2**) click the **Search** button and perform a search for a user or group of users).
3. Click **Add**.
4. Select the appropriate access from the list box:
  - **Read** – permits a user to create new collections of this type in the Collection Tree. (Note: If a user also has read access to the parent collection of this collection type, he will be able to view the collection type in the collection tree).
  - **Read and Write** – permits a user make changes to the configuration and content of the collection type itself. These users may also create new collections of this type in the collection tree.

Desired Result	Action to take
	<ul style="list-style-type: none"> <li>• <b>Full Control</b> – permits a user to view the collection type, modify it, and assign or remove security permissions for it.</li> </ul>
Remove a User or Group from the list	<ol style="list-style-type: none"> <li>1. Highlight the user or group in the list.</li> <li>2. Click <b>Remove</b>.</li> </ol>
Change the type of access for a user or group currently in the list	<ol style="list-style-type: none"> <li>1. Highlight the user or group in the list of Assigned Permissions.</li> <li>2. Select the appropriate access from the list box:</li> </ol> <ul style="list-style-type: none"> <li>• <b>Read</b> – permits a user to create new collections of this type in the Collection Tree. (Note: If a user also has read access to the parent collection of this collection type, he will be able to view the collection type in the Collection Tree).</li> </ul>

Desired Result	Action to take
	<ul style="list-style-type: none"> <li>• <b>Read and Write</b> – permits a user make changes to the to the configuration and content of the collection type itself. These users may also create new collections of this type in the Collection Tree.</li> <li>• <b>Full Control</b> – permits a user to view the collection type, modify it, and assign or remove security permissions for it.</li> </ul>

## Managing the Security Properties of a Section Type

The access privileges that you set up for a section type determine which users may create view or configure modify the section type.

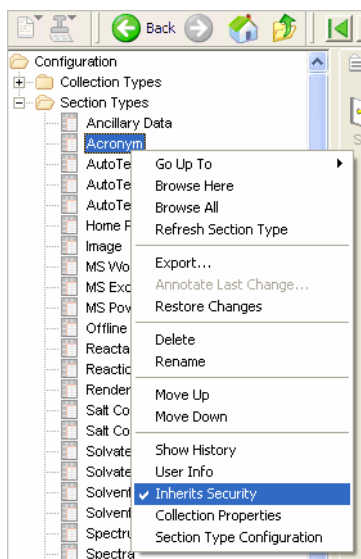
This topic applies only to the security of the section type itself. If a user has access to a particular collection type that contains the section type, it is not necessary for the user to have access to the section type in order to view/create sections within a collection. That is, the privileges you set up for a collection type apply to all of its sections.

As with other collections, the default security for a section type is Inherits Security, meaning that a section type has the same security profile as its parent collection in the Collection Tree. You may disable inherited security if you would like the security profile of a section type to be independent of the security profile of its parent.

To disable inherited security:

1. Right-click the section type for which you wish to disable inherited security.

A menu appears.



2. If **Inherits Security** is checked, select it to clear the checkmark.

Inherits Security is disabled.

---

**NOTE:** *If you disable Inherits Security, the permissions that the collection had inherited will become assigned permissions. You must remove these permissions explicitly if you do not wish these users or groups to have access to the collection.*

---

## Section Type Security

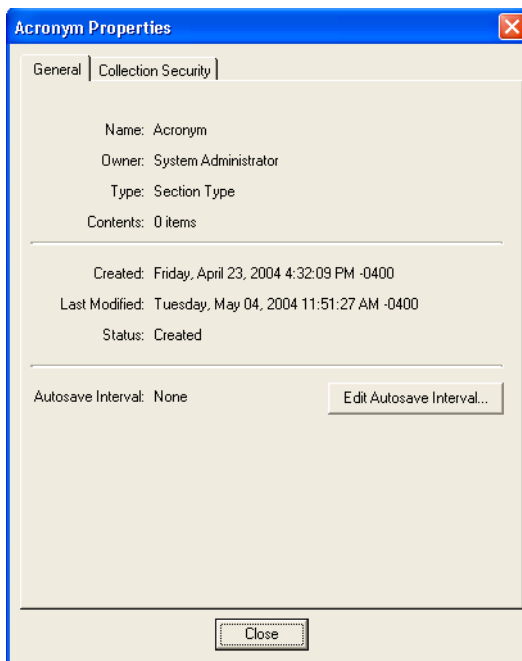
To set up or change the security properties of a section type:

1. In the Collection Tree, right-click the section type whose properties you wish to change.

A menu appears.

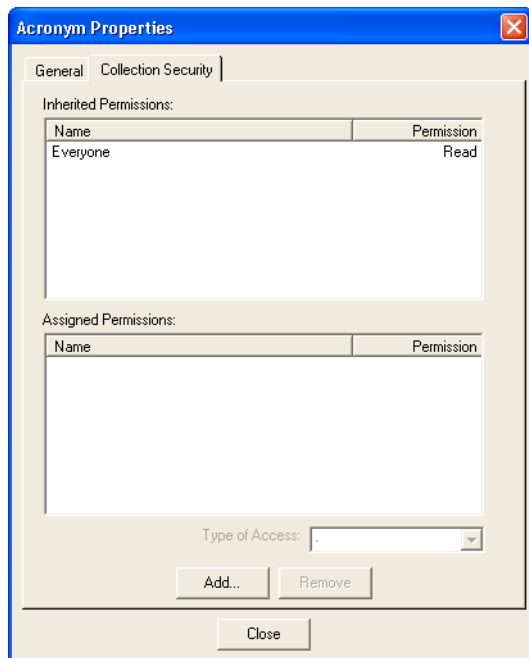
2. Select **Collection Properties**.

The Collection Properties dialog box appears.



3. Click the **Collection Security** tab.

The Security tab appears. The groups and users who have permission to access this item appear in one of the two lists: Inherited Permissions, Assigned Permissions.



Inherited Permissions are permissions inherited from the parent collection in the Collection Tree. (These permissions can only be changed by disabling inherited security, as discussed above, or by changing the security profile of the parent collection). Only the Assigned Permissions can be changed from this dialog.

4. Take the appropriate action:

Desired Result	Action to take
----------------	----------------

Add a User or Group to the list of Assigned Permissions

1. Click Add...  
The Choose User or Group dialog appears.
2. Select the appropriate user or group from the tree. (You may either **1**) right-click within a blank portion of the tree and select **Browse All** to see all of the users, or **2**) click the **Search** button and perform a search for a user or group of users).
3. Click Add.
4. Select the appropriate access from the listbox:
  - **Read** – permits a user to view the section type in the Collection Tree. (Note that the user must also have Read access to the parent collection of a section type in order to view it in the tree).
  - **Read and Write** – permits a user make changes to the to the configuration of the section type.
  - **Full Control** – permits a user to view the section type, modify it, and assign or remove security permissions for it.



Desired Result	Action to take
----------------	----------------

Remove a User or Group from the list

1. Highlight the user or group in the list.
2. Click Remove.

Change the type of access for a user or group currently in the list

1. Highlight the user or group in the list of Assigned Permissions.
2. Select the appropriate access from the listbox:
  - **Read** – permits a user to view the section type in the Collection Tree. (Note that the user must also have Read access to the parent collection of a section type in order to view it in the tree).
  - **Read and Write** – permits a user make changes to the to the configuration of the section type.
  - **Full Control** – permits a user to view the section type, modify it, and assign or remove security permissions for it.

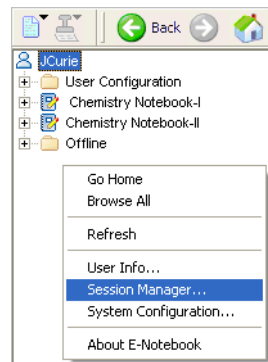
## Using the Session Manager

The Session Manager makes it possible for you to see who is logged in to E-Notebook at any given time. This tool also provides the ability to end the E-Notebook session for a particular user. You may want to end a user's session if the user has locked a collection for editing and another user must access the collection.

To access the Session Manager:

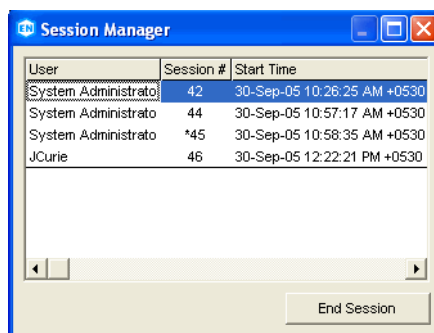
1. Right-click within a blank portion of the Collection Tree.

A menu appears:



2. Select Session Manager....

The Session Manager appears.



This dialog shows the Users, Session numbers, and Start Times for each current session.

## Ending a Session

If you wish to end a particular user's session, you may do so. To end a session:

1. Click the session in the list.

The session is highlighted.

2. Click End Session.

A message appears, asking you to confirm that you wish to end the session.

3. Click Yes.

The session is ended. The user must log on to E-Notebook again.

**NOTE:** *A user with Full Control permission over his home collection (his user collection) may use the Session Manager to end his own sessions.*



# Chapter 42: Summary of the Standard Add-Ins

This topic summarizes the functions of all the standard E-Notebook add-ins—listeners, field types, and form tools—that you may use to configure E-Notebook.

## Collection Listeners

Collection listeners are used to modify the behaviors of collections—such as the creating, hiding, renaming, duplicating and moving behaviors.

- [Auto Number Collection Listener](#) – allows the administrator to specify a customized numbering scheme for a Collection Type.
- [Audit Collection Listener](#) – prevents the user from deleting a collection if the collection has been modified since it was created.
- Change Display Collection Listener – enables Visual Display of Changes when a user creates a particular type of collection.
- Clear Value Collection Listener – clears specified properties in tables or property list fields when a collection is duplicated.
- **Enterprise** Delete Spawn Collection Listener – deletes any batch explorer links to a collection when the collection is deleted.
- Database Procedure Collection Listener – executes a database procedure during an operation on a collection.
- [Fixed Name Collection Listener](#) – prevents the user from renaming collections.
- **Enterprise** Offline Collection Listener – automatically creates a reference to a newly created collection in the offline folder.
- Owner Full Control Collection Listener – provides the user with Full Control permission for this type of collection when he/she is the owner.
- **Enterprise** No Create Offline Collection Listener – prevents the creation of this type of collection when the user is working offline.
- Parent Prefix Collection Listener – ensures that when the collection is renamed, any contained collection that has a name generated by the Auto Number listener has the correct prefix if the name of the parent collection changes.
- Prevent Delete when Referenced Collection Listener – prevents users from deleting this type of collection when it is referenced from another collection.
- Prevent Reference Copy Collection Listener – prevents users from copying collections that contain references to specific types of collections that are in specific states.
- Refresh Database Table Privilege Change Collection Listener – used to refresh the contents of a database table when the privileges associated with a collection change.
- Section List Collection Listener – caches a list of sections in a collection on the E-Notebook client.
- Security Collection Listener – allows you to assign security privileges to a collection when it is created.

- Sequence Collection Listener – names a new collection based on a global sequence that you specify.
- Unduplicatable Collection Listener – blocks the duplication of a specific type of collection.
- Unique Child Collection Listener – ensures the uniqueness of a collection of this type within its container collection.
- [User Collection Listener](#) – when a User is created, this listener displays a dialog box for key information that must be entered, such as logon ID.

## Transition Listeners

Transition listeners are used to perform a certain function that is associated with a transition from one state of a collection to another.

- [Annotate Transition Listener](#) – prompts the user for an annotation that is associated with the transition.
- Change Display Transition Listener – enables Visual Display of Changes when the transition is performed.
- Change Security Transition Listener – enables Inherits Security for a collection during a transition.
- Confirm Transition Transition Listener – a user to confirm a specific transition prior to the transition occurring.
- Export Transition Listener – exports the contents of a collection as part of a transition.
- Locked Container Transition Listener – checks to ensure that the container of the collection is in a state which permits full control over the contents of the container.
- Print Transition Listener – prints the contents of a collection as part of a transition.
- Required Non-blank Properties Transition Listener – prevents a transition from occurring if specific properties are not filled in.

- Required Rows Transition Listener – prevents a transition from occurring if specific rows are missing from a table.
- [Required Properties Transition Listener](#) – checks to ensure that the contents of the property list and tables meet the configured Required or Not Blank option. If they do not, then the transition will not be completed
- [Unlocked Contents Transition Listener](#) – checks to ensure that the collections contained within a collection are all locked before the container collection can transition into a locked state.

## Section Listeners

E-Notebook provides a number of standard Section Listeners, which may be used to modify the behavior of sections:

- Audit Section Listener – prevents a user from deleting the section only if it has been modified since it was created.
- Clear Value Section Listener – clears specified values when a user duplicates a section.
- [Fixed Section Name Listener](#) – prevents the user from renaming the section.
- New Name Section Listener – prompts a user to enter a name for a section when it is created.
- [Required Section Listener](#) – prevents the user from deleting the section at any time.
- Unduplicatable Section Listener – prevents certain sections from being copied when a user copies the collection that contains them.

## Form Tools

E-Notebook provides a number of standard form tools, which may be associated with section types to perform certain functions:

Section Type Form Tools

- Active Document (Import/Export) Form Tool – allows the import and export of MS Word documents and stored document Fields.
- **Enterprise** Batch Explorer Form Tool – allows a user to view a tree diagram of the predecessors and successors of a batch or compound.
- Character Map Form Tool – allows a user to enter Unicode characters into a text field, property list, or table.
- Import Image Form Tool – allows a user import a standard image file as a PDF.
- Insert/Export Form Tool – to insert and export MS Word documents.
- Insert Reference Form Tool – allows a user to reference to a specific collection type in a target property of a property list.
- Load Query Form Tool – allows the user to copy the contents of the currently selected query into the query panel, to conduct a search.
- Mail Section Form Tool – allows a user to send a section to the inbox of another collection, such as an experiment or a user collection.
- New Subsection Form Tool – creates a new subsection when clicked.
- Next Step Form Tool – creates a new collection with a reaction section containing the products of the selected reaction.
- [Spectrum Form Tool](#) – enables the import of various spectra files, and allows users to copy, paste, import, and export those files.
- Word Link Form Tool – allows a user to create a link from an MS Word document to a section or collection in E-Notebook.
- New Child Collection Form Tool – creates a new collection within the selected collection. For example, the tool may be used to create a new page within a notebook.
- New Section Form Tool – allows a user to associate a new section with a collection.
- **Enterprise** New Sibling Collection Form Tool – allows a user to create a new collection of the same type.

## Search Engines

- Three, standard search engines may be used:
- [Collection Search Engine](#) – used to search for collections, based on their metadata.
- [Section Search Engine](#) – used to perform searches for sections and match criteria specified in the a variety of field types.
- [Chemical Structure Search Engine](#) – used to perform searches for chemical structures. The results are organized by substructure.

## Field Types

The following field types are designed for use in data forms, for data entry, analysis, and display:

- [Active Document Fields](#)(MS Word fields)
- AutoText Fields
- Chemical Structure Fields
- Context Sensitive Help Fields
- Captured Image Fields
- Database Table Fields
- Database Value Fields
- Excel Fields
- PowerPoint Fields
- Property List Fields
- Spectrum Fields
- Stored Document Fields
- Subsection Fields

### Collection Type Form Tools

- Duplicate Collection Form Tool – allows a user to create a copy of the collection.

- Table Fields
- URL Display Fields

Several fields types are designed for use exclusively within search forms, to search for data in E-Notebook. They are:

- [Chemical Query Fields](#) – used for finding chemical structures in E-Notebook tables and chemical structure fields.
- [Collection Query Fields](#) – used for finding collections that match the metadata criteria that a user specifies.
- [Collection Type Query Fields](#) – used for specifying the collection type over which a search is run.
- [Query Text Fields](#) – used for finding text that occurs in several types of E-Notebook fields.
- [State Query Fields](#) – used to specify the state of the collections over which a search is conducted.
- [Property Query Fields](#) – used for finding specific properties in E-Notebook property lists.
- [Table Query Fields](#) – used for finding specific properties in E-Notebook tables.
- [Unannotated Version Query Fields](#) – used for finding collections in which changes that required annotation have been made, but for which no annotation has been provided
- [Search Location Fields](#) – used to specify the branch of the collection tree over which the search is to be run.

## Field Listeners


Field listeners may be associated with fields to modify their behavior.

- Generic Field Listeners – can be applied to any field type:
- Block User Edit Field Listener – makes a particular field read-only to users.
- Block Edit Cell Field Listener – makes a particular field read-only to users and administrators.
- Copy Default Field Listener – removes the content of a field when a user copies the collection that contains the field.
- Active Document Field Listeners:
  - Analyze Reaction Chemical Structure Listener – automatically updates reactants and products tables in a stoichiometry grid when a user modifies the reaction drawing.
  - Prevent External Link Active Document Listener – may be associated with an Active Document field to prevent users from linking to external URLs.
- Chemical Structure Field Listeners:
  - Analyze Reaction Chemical Structure Listener – updates a stoichiometry grid when a user edits a reaction
  - Chemical Property Chemical Structure Listener – Calculates chemical structure properties of molecular weight and molecular formula, and inserts them into a property list when the contents of the chemical structure change.
- MS Excel Field Listeners:
  - Break External Links Listener – notifies the user the external link in MS Excel files stored in E-Notebook will be broken.
  - Hide Add-Ins Listener – allows the user to disable add-ins associated with MS Excel in E-Notebook.
  - Remove Macros Listener – allows the user to disable add-ins associated with MS Excel in E-Notebook.
- Property List Listeners
  - [Block Reference In State Property List Listener](#) – prevents a user from adding a reference to a particular type of collection that is in a particular state

- [Person Property List Listener](#) – populates the value of a property with the logged-on user's name whenever the value of another property is changed.
- [Chemical Properties Property List Listener](#) – populates the Molecular Weight and Molecular Formula properties automatically as the drawing in a chemical structure field is changed
- [Validate Value Property List Listener](#) – validates a value in an E-Notebook property list against an external database.
- Formula listener – allows you to associate a formula with a cell in a property list, and display the returned value in the cell.
- Table Listeners:
  - Analyze Reaction Table Listener – automatically updates reactants and products tables in a stoichiometry grid when a user modifies a reaction drawing.
  - Block Reference table listener – prevents a user from adding a reference to a specific type of collection that is in a particular state.
  - Formula listener – allows you to associate a formula with a table cell, and display the returned value in the cell.
  - [Products table listener](#) – is associated with the products table field in the stoichiometry grid of a reaction section.
  - Products Fixed Limiting table listener – same as the Products listener, but the limiting equivalents cannot vary.
  - [Reactants table listener](#) – is associated with the reactants table field in the stoichiometry grid of a reaction section.
  - [Reactants Fixed Limiting table listener](#) – same as the Reactants listener, but the limiting equivalents cannot vary.
- [Validate Value Table Listener](#) – validates a value in an E-Notebook table against an external database.
- [Unique Property Table Listener](#) – prevents adding more than one property of the same type to a table.
- Subsection Listeners:
  - [Button View Subsection Field Listener](#) – forces subsections into button view (as opposed to the standard tab view).
  - Hide Tools Subsection Listener – hides the form tool area of a subsection for more efficient screen usage.

## Commands

Commands can be associated with a collection types and sections types to render content in: exporting to MS Word, PDF, or printing.

- Collection Commands
  - Export to MS Word Collection Command – this command allows you to render the contents of a collection to an MS Word document type.
  -  **Enterprise** Export to PDF Collection Command – allows to render and save the contents of a collection to a PDF document.
  - Print Collection Command – prints the contents of a collection using an MS Word document.
- Section Commands
  - Export to MS Word Section Command – this command allows you to render the contents of a section to an MS Word document type.
  - Print Section Command – prints the contents of a section using an MS Word document.



## Rendering Add-ins

Rendering add-ins may be used to modify the behavior of rendering – printing and exporting to Word.

- Fixed Text After Word Renderer – This renderer renders some fixed text at the end of a collection when rendering the collection.
- Full History Word Renderer – This renderer renders the entire history of a collection when rendering the collection.
- Tracked History Word Renderer – This renderer renders the history of a collection since change display was turned on for the collection.

- Fixed Table Field Renderer – renders the contents of a table according to the tags in a Word table.
- NonBlank Property Field Renderer – renders the name and value of a property if the property is not blank.
- One Property Value Field Renderer – renders the value of a single property according to the tags in a Word table.
- One Table Value Field Renderer – renders the value of a single table cell according to the tags in a Word table.
- Property Value Field Renderer – renders the values of all the properties in a property list without their corresponding names.

---

## Chapter 43: Using the Batch Import Facility

The batch import facility in E-Notebook provides for a means to import a partial or complete configuration in a single menu command. This process is controlled by an import script called the Batch File, which is an xml file adhering to the schema described in this document. The Batch File typically refers to additional files, either E-Notebook content files created with the Export command (called Content Files) or subsidiary batch files. This process is initiated by selecting a collection in the E-Notebook collection tree (which will be referred to as the Parent Collection) and choosing the Import command.

### **<batch>**

The root element must be a **<batch>**. There are no attributes defined for the batch element. A batch may contain zero or more of any of the following elements, interspersed in any order, except as dictated by the dependencies between the imported collection and section types.

- log
- alert
- refresh
- import

### **<import>**

The import element causes a single file to be imported. This file may contain any content, including section types, collection types, collections, or sections. There are no attributes defined for the import element. Each import element may contain a target element, if none is specified, the target is the parent collection. Each import element must contain a source element.

### **<target>**

The target element describes where in the E-Notebook collection hierarchy the imported content is to be placed. This element must contain one of the

following elements, depending on what sort of content is being imported:

- collectionType
- childReference

## <collectionType>

A collectionType element indicates that the relationships for a previously imported collection type are to be imported. The name attribute specifies the name of the collection type for which relationships are to be imported, and the collectionType element must include a collection element which specifies by position the first (and only) collection which defines that collection type. For example:

```
<import>
  <target><collectionType name="Binder">
    <collection position="1"/></collectionType>
  </target>
  <source>Collection Types/Binder.xml
</source>
</import>
```

## <childReference>

A <childReference> indicates a reference to a collection contained within the Parent Collection. This element must contain a name or position attribute, but is invariably used with a name. For example, this may be used to create a grandchild of the Parent Collection, as follows:

```
<import>
  <source>Section Types.xml</source>
</import>
<import>
  <target><childReference name="Section
Types"/>
  </target>
  <source>General Information.xml</source>
</import>
```

Assuming “Section Types.xml” describes a collection named “Section Types” and that “General Information.xml” describes a section type, this

<import> will create a “Section Types” collection, and within that, a General Information section type.

The E-Notebook collection hierarchy distinguishes between the nodes, called “collections”, and the links between the nodes, called “references”. Every reference has one container collection and one target collection, and a collection may be referred to as the target of any number of references. Thus, the <childReference> describes a reference, but if a <target> specifies a reference, it is assumed that the target is the reference's target collection. A <childReference> may contain a <targetCollection> element explicitly to indicate that the target is the collection, not the reference, but this is optional unless one wishes to further specify a collection contained within this collection. For example, to specify deeper levels in the collection hierarchy, one might use:

```
<import>
  <target>
    <childReference name="Some Folder">
      <targetCollection>
        <childReference name="Another Folder"/>
      </targetCollection>
    </childReference>
  </target>
  <source>Deeper Folder.xml</source>
</import>
```

## <source>

The source element contains text which specifies the path of the file to be imported. This is interpreted relative to the batch file.

## <log>

The log element contains text which is written to the client log file, if logging is enabled. If logging is not enabled, this element is ignored. Example:

```
<log>General Information section type created
</log>
```

## **<alert>**

The alert element causes a message to be displayed. This element must contain the text to be displayed, and may have a title attribute which specifies the title of the message box, and may have a buttons attribute which may be 0 or 1. If the buttons attribute is 0 or not specified, the message box will have an OK button only. If the buttons attribute is

1, the message box will have OK and Cancel, and if Cancel is pressed, the import process will stop.

## **<refresh>**

The refresh element causes the client to refresh the display of section and collection type information to show the effect of any imported objects. One commonly uses a refresh element at the end of the import script.

---

# Appendix I-F: Technical Support

## Overview

CambridgeSoft Corporation (CS) provides technical support to all registered users of this software through the internet, and through our Technical Support department.

Our Technical Support webpages contain answers to frequently asked questions (FAQs) and general information about our software. You can access our Technical Support page using the following address: <http://www.cambridgesoft.com/services/>

If you don't find the answers you need on our website, please do the following before contacting Technical Support.

9. Check the ReadMe file for known limitations or conflicts.
10. Check the system requirements for the software at the beginning of this User's Guide.
11. Read the Troubleshooting section of this appendix and follow the possible resolution tactics outlined there.
12. If all your attempts to resolve a problem fail, fill out a copy of the CS Software Problem Report Form at the back of this User's Guide. This form is also available on-line at:  
<http://www.cambridgesoft.com/services/mail>
  - Try to reproduce the problem before contacting us. If you can reproduce the problem, please record the exact steps that you took to do so.
  - Record the exact wording of any error messages that appear.
  - Record anything that you have tried to correct the problem.

You can deliver your CS Software Problem Report Form to Technical Support by the following methods:

**Internet:** <http://www.cambridgesoft.com/services/mail>

**Email:** [support@camsoft.com](mailto:support@camsoft.com)

**Fax:** 617 588-9360

**Mail:** CambridgeSoft Corporation

ATTN: Technical Support

100 CambridgePark Drive

Cambridge, MA 02140 USA

## Serial Numbers

When contacting Technical Support, you must *always* provide your serial number. This serial number was on the outside of the original application box, and is the number that you entered when you launched your CambridgeSoft application for the first time. If you have thrown away your box and lost your installation instructions, you can find the serial number in the following way:

- Choose **About CS <application name>** from the **Help** menu. The serial number appears at the bottom left of the About box.

For more information on obtaining serial numbers and registration codes see: <http://www.cambridgesoft.com/services/codes.cfm>

## Troubleshooting

This section describes steps you can take that affect the overall performance of s Desktop Applications, as well as steps to follow if your computer crashes when using a CS software product.

## Performance

Below are some ways you can optimize the performance of CambridgeSoft Desktop Applications:

- In the Performance tab in the System control panel, allocate more processor time to the application.
- Install more physical RAM. The more you have, the less ChemOffice Desktop Applications will have to access your hard disk to use Virtual Memory.
- Increase the Virtual Memory (VM). Virtual memory extends RAM by allowing space on your hard disk to be used as RAM. However, the time for swapping between the application and the hard disk is slower than swapping with physical RAM.

Change the VM as follows:

- System control panel, Performance tab.

## System Crashes

CambridgeSoft Desktop Applications should never crash, but below are the steps you should go through to try to resolve issues that cause computer crashes while using a CS software product.

1. Restart Windows and try to reproduce the problem. If the problem recurs, continue with the following steps.
2. The most common conflicts concern Video Drivers, Printer Drivers, screen savers, and virus protection. If you do need to contact us, be sure to determine what type and version of drivers you are using.

- **Video Driver related problems:** If you are having problems with the display of any CambridgeSoft Desktop Application, try switching to the VGA video driver in the display Control Panel (or System Setup, and then retest the problems. If using a different driver helps, your original driver may need to be updated—contact the maker of the driver and obtain the most up-to-date driver. If you still have trouble contact us with the relevant details about the original driver and the resulting problem.
- **Printer Driver related problems:** Try using a different printer driver. If using a different driver helps, your original driver may need to be updated—contact the maker of the driver and obtain the most up-to-date driver. If you still have trouble contact us with the relevant details about the original driver and the resulting problem.

3. Try reinstalling the software. Before you reinstall, uninstall the software and disable all background applications, including screen savers and virus protection. See the complete uninstall instructions on the CambridgeSoft Technical Support web page.
4. If the problem still occurs, use our contact form at: <http://www.cambridgesoft.com/services/mail> and provide the details of the problem to Technical Support.

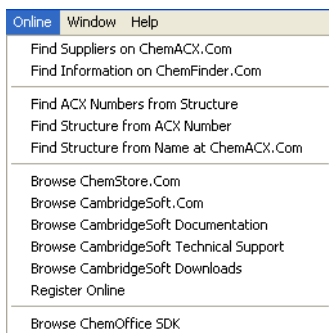
# Appendix I-G: Accessing the CambridgeSoft Web Site

## Online Menu Overview

The ChemFinder Online menu gives you quick access to the CambridgeSoft web site from within ChemFinder. With the Online menu, you can:

- Register your software.
- Search for compounds by name or ACX number and insert the structure in a worksheet
- Use ACX numbers, or names or structures in the worksheet, to search for chemical information
- Browse the CambridgeSoft website for technical support, documentation, software updates, and more

To use the Online menu, you must have internet access.



## Registering Online

ChemOffice 2006 applications utilize a new security scheme. In order to activate any ChemOffice application, you must register with the CambridgeSoft website to receive a registration code. Upon filling out a registration form, the registration code is sent to you by email. This registration scheme does not apply to site licenses.

If your serial number is invalid for any reason, or if you do not have an internet connection, you will have to contact CambridgeSoft Support to receive a registration code.

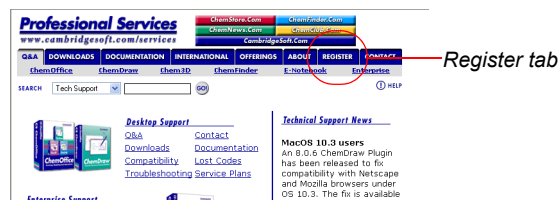
You may use your ChemOffice application a limited number of times while waiting for the registration process to be completed. Once the application times out, you must register to activate the software.

In addition to registering your software, you can request literature, or register for limited free access to ChemFinder.com, ChemACX.com, ChemClub.com, and the email edition of ChemNews from the Register Online link of the Online menu. This link connects you to the CambridgeSoft Professional Services page. From this page you can link to a registration form.

To register online:

1. From the Online menu, choose Register Online.

The CambridgeSoft Professional Services page opens in your browser.



2. Select the Register tab.

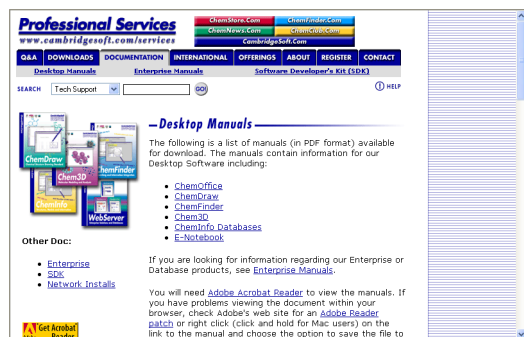
## Accessing the Online ChemDraw User's Guide

The Online menu link Browse CS ChemDraw Documentation opens the CambridgeSoft Desktop Manuals page, where you can access current and

previous versions of the ChemFinder User's Guide.

To access the CambridgeSoft Manuals page:

1. From the Online menu, choose **Browse CS ChemDraw Documentation**.



The Desktop Manuals page appears. PDF versions of the CambridgeSoft manuals can be accessed from this page.

**NOTE:** *If you do not have a CambridgeSoft User account, you will be directed to a sign-up page first.*

2. Click version of the manual to view.

## Accessing CambridgeSoft Technical Support

The Online menu link **Browse CS ChemFinder Technical Support** also opens the CambridgeSoft Professional Services page. There are a number of links on this page for Troubleshooting, Downloads, Q&A (the ChemOffice FAQ), Contact, and so forth.

## Finding Information on ChemFinder.com

The Find Information on ChemFinder.com menu item links your browser to the ChemFinder database record of the compound you have selected.

ChemFinder is the public-access database on the ChemFinder.com website. It contains physical, regulatory, and reference data for organic and inorganic compounds.

To access ChemFinder.com:

1. In ChemFinder, select a structure you want to look up.
2. From the Online menu, choose **Find Information on ChemFinder.com**.

The ChemFinder.com page opens in your browser with information on the selected structure.

In ChemFinder.com you can search for chemical information by name (including trade names), CAS number, molecular formula, or molecular weight. Follow the links to do substructure queries. The following illustration shows part of the page for Benzene.

**ChemFinder.com**  
Database © Internet Searching

Enter a Chemical Name, CAS Number, Molecular Formula or Weight.  
Use \* for partial names (e.g. ben\*).  
Search here for free. For professional searching, use ChemINDEX.

**Benzene [71-43-2]**  
**Synonyms:** (6)annulene; Benzene; Benzene; Benzene; Benzol; Benzole; bicarburet of hydrogen; carbon oil; Coal naphtha; cyclohexatriene; mineral naphtha; motor benzol; nitration benzene; Phenae; Phenyl hydride; pyrobenzol;

**Tools**  
BUY AT CHEMACE.COM  
VIEW CHEMRAW STRUCT  
VIEW CHEM3D MODEL

**OpenChem**  
VIEW LINKS  
ADD COMPOUND  
ADD/CHANGE PROPERTY  
ADD LINK

**CAS RN Lookup**  
THE MERCK INDEX  
NCI DATABASE

**Formula**  $C_6H_6$   
**CAS RN** 71-43-2  
**ACX Number** X1001498-9  
**Density** 0.8786  
**Refractive Index** 1.5011  
**Evaporation Rate** -11  
**Flash Point (°C)** UN 1114 Flammable liquid; UN 1115 Flammable liquid  
**DOT Number** UN 1114 Flammable liquid; UN 1115 Flammable liquid  
**Comments** Colorless liquid with a paint-thinner-like odor detectable at 12 ppm.

**Molecular Weight** 78.1134  
**Melting Point (°C)** 5.5  
**Boiling Point (°C)** 80.1  
**Vapor Pressure** 12.7 kPa @ 25 C  
**Water Solubility** Slightly sol. (0.18 g/100 mL)  
**EPA Code** K040; K049; K051; K052; K060; K083; K085; K087; K103; K104; K105; K141; K142; K143; K144; K145; K147; K151; U019; D018  
**ITECS** C1400000

**More information about the chemical is available in these categories:**  
Biochemistry Health Misc MSDS  
Pesticides/Herbicides Physical Properties Regulations Structures  
Trading Usage

## Finding Chemical Suppliers on ACX.com

The Find Suppliers on ChemStore.Com menu item links your browser to the chemacx.com database record of suppliers of the compound you have selected.

ChemACX (Available Chemicals Exchange) is a Webserver application that accesses a database of commercially available chemicals. The database contains catalogs from research and industrial chemical vendors.

ChemACX allows the user to search for particular chemicals and view a list of vendors providing those chemicals.

To use Find Suppliers on ChemStore.Com menu access:

1. In ChemFinder, select a structure you want to look up.
2. From the Online menu, choose Find Suppliers on ChemStore.com.

The ChemACX.Com page opens in your browser with information on the selected structure.

For example the ChemACX.com page for Benzene is shown below.

The screenshot shows the ChemACX CambridgeSoft website interface. At the top, there are links for SHOPPING CART, LOGIN, YOUR ACCOUNT, and HELP. Below these are navigation tabs: Print, Preferences, Help, About, and Log Off. A search bar contains the text "Substances matching your query: 2". Below the search bar, there are two columns of results. The first column is labeled "Record #1" and shows a chemical structure of Benzene with the CAS# 71-43-2. The second column is labeled "Record #2" and shows the same chemical structure of Benzene with the CAS# 27271-55-2. The interface includes various buttons like "New Query", "Edit Query", "Refine", "Mark All Records", and "Export Hits".

For more information on using the ChemACX website, see the ChemOffice Enterprise Workgroup & Databases Manual.

## Finding ACX Structures and Numbers

ChemFinder searches ACX and returns information about related structures and numbers. You can place the returned information in your document.

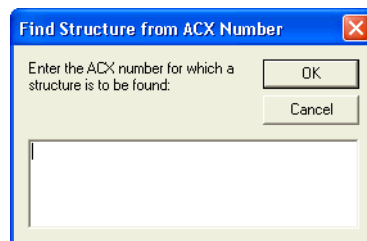
### ACX Structures

There are two ways to find ACX structures: by ACX number or by name.

To find a structure that corresponds to an ACX number:

1. From the Online menu, choose Find Structure from ACX Number.

The Find Structure from ACX number dialog box appears.



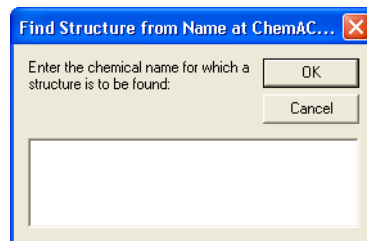
2. Type the ACX registry number.
3. Click the OK button.

The Structure appears in your document.

To find a structure from a name

1. From the Online menu, choose Find Structure from Name at ChemACX.com.

The Find Structure from Name dialog box appears.





2. Type in a name. As with ChemFinder.com, you can use a chemical name or a trade name.
3. Click the OK button.

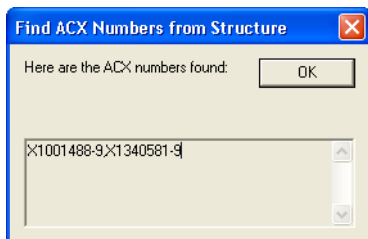
The Structure appears in your document.

## ACX Numbers

To Find an ACX number for a structure:

1. In a ChemFinder document, select the structure for which you want to find an ACX number.
2. From the Online menu, choose Find ACX Numbers from Structure.

The ACX number appears in the Find ACX Numbers from Structure dialog box.



## Browsing ChemStore.com

Browse ChemStore.com opens the ChemStore page of the CambridgeSoft web site.

To access Browse ChemStore.com:

From the Online menu, choose Browse ChemStore.com.

The ChemStore.Com page opens in your browser.



You can search ChemStore.Com for chemicals, lab supplies, chemistry-related software, and other items you want to buy. You can access ChemACX.Com, LabEqwip.Com, and other pages from ChemStore.Com.

## Browsing CambridgeSoft.com

Browse CambridgeSoft.com opens the Home page of the CambridgeSoft web site.

To access the CambridgeSoft Home Page:

From the Online menu, choose Browse CambridgeSoft.com.

The CambridgeSoft web site in your browser.

The screenshot shows the CambridgeSoft website homepage. At the top, there is a navigation bar with links to ChemStore.Com, ChemNews.Com, and ChemFinders.Com. Below this is a main menu with categories: SOFTWARE, SOLUTIONS, DATABASES, SERVICES, SITES, ABOUT, REGISTER, and CONTACT. Each category has sub-links. For example, under SOFTWARE, there are links to ChemOffice, ChemDraw, Chem3D, E-Notebook, and ChemFinder. The main content area is divided into several sections: Desktop Software (listing ChemOffice, ChemDraw, Chem3D, E-Notebook, Academic Site License, View Feature Demos, Free Recorded Seminars), Enterprise Solutions (listing ChemOffice Enterprise, E-Notebook, 21CFR11, BioAssay HTS, Inventory Ent, Oracle Cartridge, View Product Demos, Free Recorded Seminars), Chemical Databases (listing Ashgate Drugs, The Merck Index, Organic Synthesis, Chiral Auxiliaries, ChemACX Database, ChemINDEX NCI & AIDS, ChemInfo, Chemical Db), Professional Services (listing Desktop Support, Enterprise Support, Informatics Planning, Custom Development, Deployment Service, Educational Training, Service Plans, Systems Management), E-Commerce Stores (listing Software, Databases, Download, Subscription), and Web Sites (listing ChemFinder, Deutsch, ChemStore, Français, ChemNews, 日本語, ChemClub, Resellers). There is also a section for 'The Merck Index 13.2 New Features' with a list of updates and a date of 01/27/2004.

Check the CambridgeSoft web site for new product information. You can also get to ChemStore.Com, ChemNews.Com, and other pages through CambridgeSoft.Com.

## Using the ChemOffice SDK

The ChemOffice Software Developer's Kit (SDK) enables you to customize your applications.

To browse the ChemOffice SDK:

From the Online menu, choose Browse ChemOffice SDK.

The CS ChemOffice SDK page opens in your browser.

The screenshot shows the CS ChemOffice Software Developer's Kit web page. The page has a header with 'TechnicalSupport' and 'CambridgeSoft.Com/Support'. Below the header, there is a list of links: CS ChemOffice SDK Home Page, CS ChemDraw SDK Home Page, CS ChemFinder SDK Home Page, CS Chem3D SDK Home Page, and ChemOffice Menu Extensions. The main content area is titled 'CS ChemOffice Software Developer's Kit' and contains a welcome message: 'Welcome to the CS ChemOffice software developer's kit (SDK) web site that provides documentation, sample code, and other resources for the ChemOffice component Application Programming Interfaces (APIs). You can use these APIs to create custom add-ons that enhance ChemOffice functionality or to add ChemOffice functionality to your programs. If you cannot find the code or samples on this site you are looking for, we may be able to provide you with what you need. Please contact consulting with the details or your code request.' Below this, it says 'Unless otherwise indicated, the information present on this site applies to the latest versions of our software.' and 'APIs are available for the following ChemOffice components: -ChemDraw'.

The ChemOffice SDK page contains documentation, sample code, and other resources for the Application Programming Interfaces (APIs).



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